

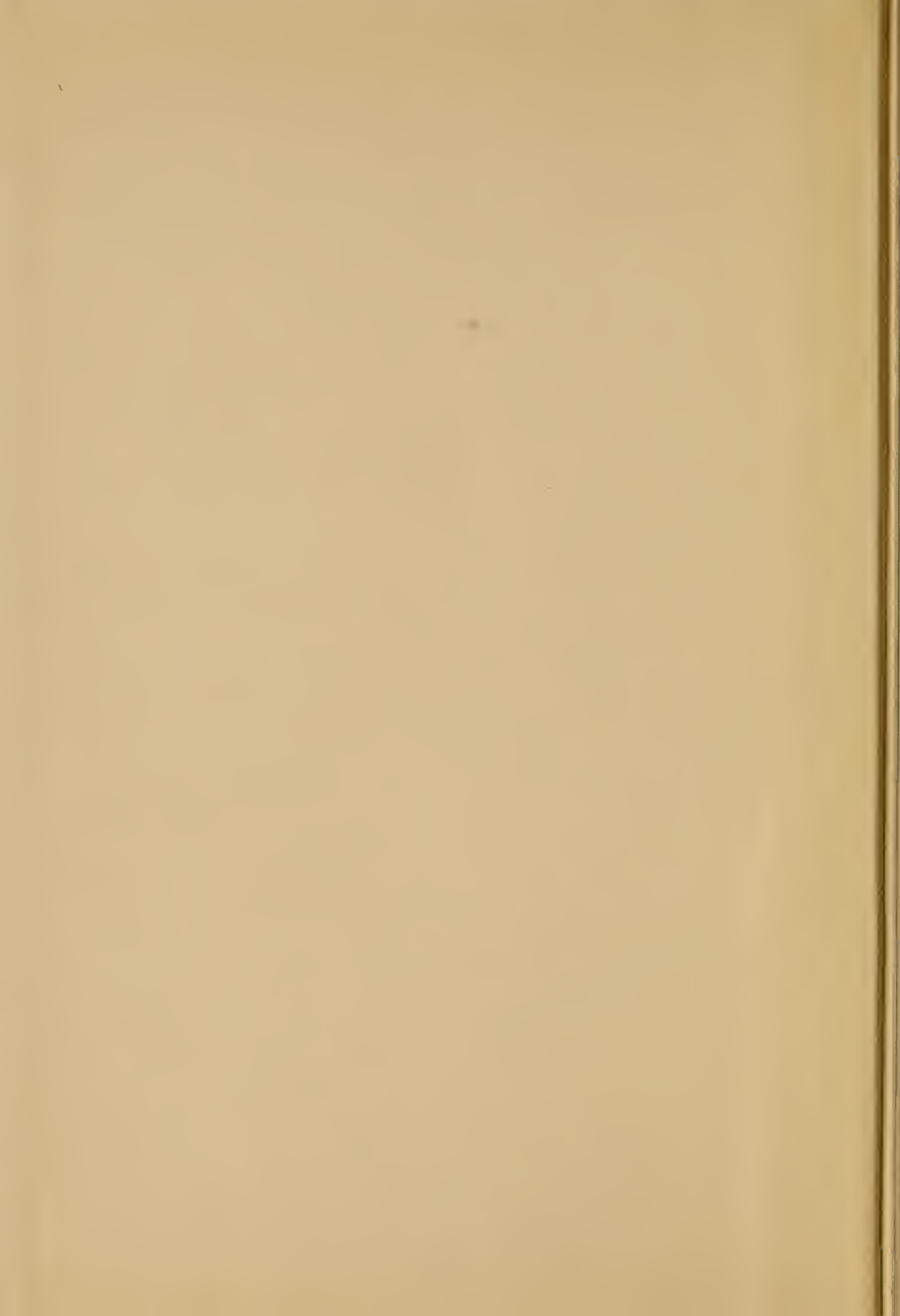
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TWENTY-SEVENTH BIENNIAL REPORT
OF THE
STATE ENGINEER
TO THE
GOVERNOR OF COLORADO
FOR THE YEARS
1933 - 1934





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Twenty-Seventh Biennial
Report

OF THE

STATE ENGINEER

TO THE

Governor of Colorado



For the Years 1933-1934

M. C. HINDERLIDER
State Engineer

BRADFORD-ROBINSON PRINTING CO.
DENVER, COLORADO
1935

LETTER OF TRANSMITTAL

Sir:

In compliance with provisions of law, I have the honor to transmit herewith the Twenty-seventh Biennial Report of the activities of the Department of State Engineer for the two calendar years 1933 and 1934.

Very respectfully,

M. C. HINDERLIDER,
State Engineer.

To His Excellency,

ED C. JOHNSON,
Governor.

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LIST OF OFFICERS AND EMPLOYEES

State Engineering Department

M. C. Hinderlider.....	State Engineer
C. C. Hezmelhaleh.....	Deputy State Engineer
L. T. Burgess.....	Chief Hydrographer
W. T. Blight.....	Chief Clerk and Draftsman
Edith Plunket	Stenographer
Bessie Thompson.....	Stenographer
J. E. Whitten.....	Hydrographer, Div. 1
C. E. McGraw.....	Hydrographer, Div. 1
Ralph Owens	Hydrographer, Div. 2
F. C. Snyder.....	Hydrographer, Div. 2
D. S. Jones, Jr.....	Hydrographer, Div. 3
F. C. Hart	Hydrographer
On special investigations in San Luis Valley	
R. J. Tipton.....	In charge of Interstate River Studies

IRRIGATION DIVISION ENGINEERS

Div. No. 1, C. C. Hezmalhaleh, Deputy State Engineer.....	Denver
Div. No. 2, C. W. Beach	Pueblo
Div. No. 3, W. D. Carroll	Alamosa
Div. No. 4, H. C. Getty.....	Montrose
Div. No. 5, A. J. Dickson.....	Glenwood Springs
Div. No. 6, B. T. Chase	Steamboat Springs
Div. No. 7, J. R. Williams.....	Durango

WATER COMMISSIONERS

Div. No.	Dist. No.		
1	1	J. L. Samples.....	Ft. Morgan
1	2	Stewart V. Wallace.....	Ft. Lupton
1	3	W. J. McAnelly.....	Ft. Collins
1	4	H. H. Kelly.....	Loveland
1	5	J. A. Lee and C. J. Maier, 516 Bross St.....	Longmont
1	6	Thos. L. Platt, 2340 Mapleton Ave.....	Boulder
1	7	A. E. Jones.....	Golden
1	8	Louis Bertolett	Littleton
1	9	J. W. Van Gorden.....	Morrison
2	10	J. M. Pribble, 1020 N. Wahsatch.....	Colorado Springs
2	11	Howard Sneddon (J. A. Burnett, acting during Sneddon's suspension)	Salida
2	12	D. S. Jones.....	Canon City
2	13	H. W. Hendershot.....	Westcliffe
2	14	Joseph Russ	Pueblo
2	15	John Simonson	Beulah
2	16	H. W. Craig.....	La Veta
2	17	S. W. Cressy.....	Rocky Ford
2	18	Juan A. Mestas.....	Aguilar
2	19	H. B. Bostick	Trinidad
3	20	Thomas Carr.....	Del Norte
3	21	T. M. Orman.....	La Jara
3	22	L. W. Sowards	Manassa
1-2	23	J. Desserich	Pine
3	24	Fares Gold	San Luis
3	25	John L. Charles	Crestone
3	26	S. O. Proffit	Saguache
3	27	Jas. Medina.....	La Garita
4	28	J. Roy Hicks.....	Sargents
7	29	Joe T. Chambers, Com. at Large, '34.....	Pagosa Springs
7	30	George H. Tyner.....	Falfa
7	31	Albert Larsen	Tiffany
7	32	No Commissioner.....	
7	33	Jerry Griggs.....	Breen
7	34	Hugo Weston	Mancos
3	35	George Opinear.....	Ft. Garland
5	36	No Commissioner.....	
5	37	B. F. Long.....	Eagle

WATER COMMISSIONERS (Continued)

Div. No.	Dist. No.		
5	38	P. K. Bartheel.....	Carbondale
5	39	Isam W. Graham.....	Rifle
4	40	C. H. Luellen.....	Eckert
4	41	A. J. Baxter.....	Montrose
4	42	George M. Saunders	Mesa
6	43	F. A. Carstens.....	Meeker
6	44	Eben Hamilton.....	Craig
5	45	Frank Taughenbaugh.....	Rifle
1	47	Clarence Boston.....	Walden
1	48	R. A. Mosier.....	Jelm, Wyo.
2	49	No Commissioner.....	
5	50	No Commissioner.....	
5	51	P. S. Elting.....	Sulphur Springs
5	52	Carl Forster	Radium
5	53	Chas. Plasters	Burns
6	54	Frank D. Baxter.....	Slater
6	55	No Commissioner.....	
6	56	No Commissioner.....	
6	57	Jas. N. Kennedy.....	Hayden
6	58	E. H. Godfrey.....	Oak Creek
4	59	Leon H. Dutemeyer (Com. at Large).....	Gunnison
4	60	J. P. Zurich.....	Norwood
4	61	W. O. Roberts.....	Paradox
4	62	Leon H. Dutemeyer (Com. at Large).....	Gunnison
4	63	No Commissioner.....	
1	64	John M. Shea.....	Sterling
1	65	John Hultquist	Laird
2	67	R. J. McGrath.....	Lamar
4	68	Wm. R. Burkitt.....	Ridgway
7	69	F. C. Hardman.....	Cedar
5	70	John Moore.....	DeBeque

CHAPTER I

FINANCIAL STATEMENT

FEES RECEIVED BY OFFICE DURING BIENNIUM

January 1, 1933 to December 31, 1934

Filings	\$3,260.00
Postage	3.05
Sale of Blueprints.....	495.00
Certifications	78.00
Examination of Dam Plans.....	242.00
Filing Transfer Decrees.....	20.00
Recording Transfer of Filings	23.00
Office Labor	20.00
Total	<hr/> \$4,141.05
Deposited with State Treasurer.....	\$4,141.05

APPROPRIATIONS

	1933-35		Balance Turned Back to General Fund from Appropriation at End of Fiscal Year	
	June 30, 1933	June 30, 1934	June 30, 1933	June 30, 1934
	\$	\$	\$	\$
State Engineer, Salary	8,850.00		.00	.00
Deputy State Engineer, Salary	5,650.08		.00	.00
Chief Clerk, Salary	3,900.00		.00	.06
Stenographer, Salary	2,700.00		.00	.00
Special Deputy State Engineer, Salary	4,800.00		.00	.00
Chief Hydrographer, Salary	4,620.00		.00	.00
Five Hydrographers, Salary	17,478.76		.00	*107.50
Five Division Engineers, Salary	24,000.00		.00	.00
Traveling and Contingent Fund—				
State Engineer and Deputy	4,100.00		1,015.43	144.62
Chief Hydrographers Expense	1,200.00		2.43	.00
Traveling Expenses Five Hydrographers	10,750.00		2,036.48	179.85
Traveling Expenses Special Deputy State Engineer	1,700.00		85.42	.00
Traveling Expenses Five Division Engineers	9,000.00		131.69	.00
Incidental Expenses, Including Gage Readers' Salaries, etc.	8,800.00		327.91	53.09
General Incidental Expenses, Including Office Expense	3,000.00		.00	.84
Totals	\$110,548.84		\$3,599.36	\$ 485.96

*No Hydrographer for part month.

CHAPTER II

ADMINISTRATION

While the unprecedented shortage in the water supplies of the state during 1934, and in certain areas in 1933, precipitated many perplexing problems of administration, these were usually adjusted by the local water officials and generally in a satisfactory manner. Probably no greater number of appeals to the State Engineer from rulings of the local water officials were required to be heard than during former years. The lack of adequate water supplies tended to accentuate former difficulties in certain parts of the state with respect to the relative superiority of decrees for direct application and for storage purposes. It is hoped that this very important question will soon be determined by the Supreme Court in the case of "The Park Reservoir Company vs. Hinderlider," which is now before that court upon appeal from a decision of the District Court of Delta County, upholding the ruling of this office.

An equally perplexing problem has arisen within the last two years, very largely as the result of the mild fall and winter months and subnormal water supplies during the growing season, which have increased the demands for water for direct application to the land for longer periods of time than during years of normal and well sustained moisture supplies. These abnormal conditions have tended to reduce the quantity of water normally available for storage, particularly in the upper portions of the South Platte, and in the lower portions of the Arkansas River basins where the larger reservoirs are located.

Our Supreme Court's ruling that there is no such thing as an "irrigation season" permits the use of water for direct irrigation at any time, so long as the same may be beneficially applied and without undue waste. Divergence of opinion exists as to what constitutes "beneficial application," having due regard to the prevention of waste. In some sections of the state which enjoy longer periods of mild temperatures, many irrigators contend that the irrigation of the soil in the fall, winter or early spring months is essential to the proper preparation of seed beds, and the germination of the crops in the spring, and hence the uses of water for such purposes is just as necessary and as beneficial as when applied to growing crops, or when placed in reservoirs for future use. This is probably true. The chief objection raised against late fall and winter irrigation, however, arises where the water is applied to the soil for ground storage, which is likely to be dissipated through evaporation and seepage before the next season's requirements, or upon frozen ground, or upon land which may not be cultivated the following season.

For the purpose of minimizing wasteful application of water during the so-called "non-irrigation" season or period, and to make such uses conform as nearly as may be to the rule established by our Supreme Court, and the fundamental principles of our irrigation laws requiring beneficial and economical uses of water, this office ruled three years ago that irrigation during the non-growing or frost period must be limited to crops in a dormant state, such as wheat, grass, alfalfa or orchards. It must be obvious, however, that such rule is impossible of effective application, except through the co-operation of the irrigationists, or through an extensive and very expensive system of policing, which does not appear practicable.

Some of the most difficult problems of administration of the water supplies of the state occur in the higher altitudes where there is a strong tendency, particularly during the business depression, to curtail the extent of the services of the local water officials. This frequently has the effect of depriving a senior appropriator of water at critical periods and tends to foment litigation which the farmer can ill afford, or even physical violence, which is worse. We believe that the water user is as much entitled to the same degree of protection to his rightful use of the waters of the state as is any other business or industry, and this can be provided only through efficient policing of the sources of such water supplies, particularly during critical periods of supply and demand.

This office has the authority to deputize persons to assist the water commissioners in the performance of their duties, but, where no state appropriations are available for such purposes, the party whose rights are being invaded by a junior appropriator must frequently either submit to such injury, or finance the cost of employing special deputies appointed by this office. To remedy this situation, the present Legislature has been asked to provide an appropriation of \$10,000 for the new biennium for the temporary employment of those deputized by the State Engineer for such purposes.

The dearth of moisture during the past year has resulted in the development of numerous wells, both for irrigation and domestic uses. In many instances these wells draw upon underground water supplies which are either directly or indirectly tributary to the natural streams of the state. There are no laws in this state relating specifically to the appropriation and use of underground waters (other than artesian waters) and which make a distinction between such underground waters and surface waters. The presumption is that all waters are in some manner tributary to a natural drainage course. The same are subject to appropriation for any beneficial use, subject to all senior appropriations of water from the stream into which such waters flow or percolate.

For many years it has been the policy of this office to limit our police authority to those diversions made by constructed works of

any character which divert the water out of the surface channel of a natural water course, or directly from the water-bearing materials located immediately beneath such channels, and to refrain from extending such authority to pumping plants or subterranean collecting works removed from the channels of natural water courses. This matter is discussed herein, since numerous inquiries reach this office relative to the right of one to use underground waters adjacent to, or well removed from a natural water course.

The administrative duties of the water officials and of this office continue to increase from year to year, as the result of new adjudication proceedings. Within the past biennium several such proceedings have added to the already large list of decrees administered by this Department. Two of the most extensive and important of such water adjudications are the proceedings in Water District No. 7, covering Clear Creek in Irrigation Division No. 1, which has been pending some fifteen years, and the recent proceedings adjudging all claims on Pine River in Water District No. 31 in southwestern Colorado. This latter proceeding was of particular interest, in that it established the relative rights to the use of water from that stream, including both the claims of the Federal Government in behalf of its Indian charges and the numerous white settlers along the stream, which had been more or less in dispute for many years. Immediately following the issuance of the court decree, the prompt appointment of a water commissioner by you enabled this Department to institute an immediate and effective control of the diversions from the stream, in which the officials of the Indian service and the water users actively co-operated. In this connection, many new measuring devices were installed in the several ditches, and a new stream gaging station with recording device was provided at the head of the irrigated area, to provide the data necessary for a proper administration of the court decree.

In the litigation which has arisen over rulings of this office within the biennium, and on which the courts have passed, this office has uniformly been sustained. The one outstanding exception was the decision of our Supreme Court in reversing the lower court in its ruling in the case of "The La Plata River and Cherry Creek Ditch Company vs. Hinderlider, et al." This case arose in the District Court for La Plata County over the application of the rotation provision of the La Plata River Compact. The lower court sustained the actions of the state water officials, but was reversed by our Supreme Court, which held in substance that the provisions of the compact, authorizing rotation of water between the two states in times of scarcity, are not sufficient justification for the nullification of the protection afforded an appropriator of water by a court decree of this state. An appeal from the ruling of our Supreme Court was

taken by the Attorney General on behalf of the State Engineer to the Supreme Court of the United States on the principal ground that the La Plata River Compact, which was authorized and approved by the Congress of the United States, is in fact a Federal statute, the interpretation of which is reviewable only by the latter court. The Supreme Court of the United States declined to assume jurisdiction until such time as the ruling of the Supreme Court of Colorado in the La Plata case becomes effective, as against the defendant water officials, through decree of the lower court in harmony with the ruling of our Supreme Court. It is anticipated that, as soon as such action has been taken by the District Court, the State of Colorado, in its sovereign capacity, will intervene by request for a rehearing of the case by the Supreme Court of Colorado.

CHAPTER III

WATER SUPPLY AND CROP CONDITIONS

The available water supply in 1933 amounted to from a minimum of 63% in the southwestern portion of the state to about 97% of the normal supply in the northwestern portion. In the South Platte River basin the supply of water for irrigation was 94%; in the Arkansas River basin 73%; in the Rio Grande basin 70%, and in the Colorado River basin 87% of normal, although but 63% in northwestern Colorado. As the result of such conditions, combined with storage water carried over from 1932, and favorable supplies of rain, practically normal crops were produced in nearly all areas, with the exception of the northwestern and southwestern portions of the state, where shortage of water supplies in certain areas, and unfavorable weather conditions resulted in reduced crop yields. The prices received generally for farm commodities were very unsatisfactory.

The year 1934 will go down in history as the period of the great drouth, both as regards stream flow and precipitation during the growing season. Stream flow varied from 34% in southwestern Colorado to a maximum of 53% of the normal in the South Platte River basin. The average for the entire state was but 46% of the normal for all years of record. Very little stored water was carried over from 1933 for use in 1934. The precipitation throughout the state in 1934 was far below normal, especially during the growing period, while temperatures were above normal. This combination of adverse conditions resulted in the worst situation ever known, with crops averaging from possibly 70% in a few restricted areas to virtually complete failure in other areas. Lack of precipitation over the grazing areas made it necessary to destroy or market a large percentage of the herds and droves of livestock. In the mountain areas, perennial springs and streams dried up early in the growing season and remained dry for the balance of the year. The Colorado and Gunnison Rivers, the two largest streams in the state, for the first time in recorded history, went virtually dry near Grand Junction, while the acquirement of even meager supplies of water for domestic needs throughout the state became a most serious problem. In many sections people were compelled to haul water many miles for household uses and to drive their livestock similar distances to water. Ground waters dropped many feet or entirely disappeared. This condition had a profound effect upon the normal accretions to the streams from seepage and return flow, which constitutes a very large part of the water supplies usually available for irrigation. As the result of this great deficiency of moisture in the South Platte River basin and the recent court decree reducing the amount of water theretofore obtained by the City of Denver from its direct flow decrees, the water supplies in storage in the city's reservoirs were

reduced to the lowest since the construction of Cheesman Reservoir in 1903. At the end of 1934, the available water in storage will supply the normal needs of the city for about four months. At the close of the year the outlook for adequate water supplies for 1935 is by no means promising.

The most favorable conditions are in the Rio Grande and Animas River basins, where snow and rain are approaching conditions of normalcy. The situation throughout the state is intensified by almost complete lack of water in storage and depleted ground waters.

Prices received for farm crops and livestock in 1934 in a measure offset the ruinous situation with which the farmer would otherwise have been confronted. This, however, was of no benefit to those areas which produced little or nothing. Very largely, as the result of the great drouth, almost the entire population of large areas of the state, which are located in the non-irrigated regions, are on public relief, and in other similar areas the former relief load has been greatly increased. This unprecedented shortage of moisture graphically demonstrates the fact that irrigated agriculture in Colorado must continue to be the basis of our material wealth and security, and accentuates the imperative need for the prompt formulation and execution of plans for the conservation and utilization of all our surplus water supplies, primarily for the stabilization of this basic industry.

CHAPTER IV

WATER CONSERVATION STUDIES

Prior to 1933, this office had made engineering investigations of and reports upon, the major projects designed for the better regulation and conservation of the water supplies of the Arkansas, South Platte and Rio Grande valleys in Colorado. Within the present biennium these investigations were extended to cover a large part of the Colorado River basin and to include several major transmountain diversion projects, which involve long tunnels through the Continental Divide and large equalizing reservoirs. Based upon such studies and the great need for additional water supplies to supplement and stabilize the available flow of the Rio Grande, Arkansas and South Platte Rivers, the following applications, signed by the Governor, Attorney General and State Engineer, were presented to the Administrator for Public Works at Washington for the construction of the following major water conservation projects of the state :

Name of Project	Estimated Cost
La Plata River Reservoirs	\$ 850,000
Pine River Reservoir.....	2,225,000
Vega Sylvestre Reservoir.....	4,000,000
Conejos Reservoir	2,000,000
Closed Basin Drain	900,000
Caddoa Reservoir.....	9,000,000
Northern Transmountain Diversion.....	14,000,000

With the exception of the last named project, the applications requested that these projects be constructed at the sole cost of the Federal Government. Several appearances by the State Engineer before the departments at Washington were made in behalf of these applications, and of other applications presented by Irrigation and Drainage Districts for loans for refinancing outstanding obligations.

In this connection, the Public Works Administrator recently allocated \$150,000 to the U. S. Bureau of Reclamation with which to make a detailed study of the Northern Transmountain Diversion project, designed to divert approximately 200,000 acre feet of water from the headwaters of the Colorado River to the South Platte River basin, and it is anticipated that a similar allocation will be asked for the purpose of a like investigation to determine the ultimate feasibility of a large diversion of water from the Colorado River to the Arkansas River basin. Both these projects, involving long tunnels through the Continental Divide, together with large storage reservoirs for replacement and equalizing purposes, have been studied and reported upon by this office in a preliminary way, and constitute two of the major transmountain diversions designed to provide

badly needed supplemental water supplies for the Eastern Slope of the state.

During the biennium, this office was instrumental in securing a loan of \$2,000,000 from the Reconstruction Finance Corporation for the construction of a six mile tunnel under the Continental Divide for the Twin Lakes Reservoir and Canal Company. The major unit of this project, which is designed to deliver about 56,000 acre feet of supplemental water to 50,000 acres of highly developed lands in the Arkansas River Valley, is now nearing completion. All these major transmountain diversion projects, for bringing water from the Colorado River basin to the Eastern Slope of the state, provide for the construction of compensating storage reservoirs for the safeguarding of present and future requirements for water in the Colorado River basin of our state.

The disastrous deficiency in moisture and water supplies in the Colorado River basin in 1934 crystallized and intensified interest in the development of additional storage reservoirs, particularly in those areas where such development is almost wholly lacking. Out of an appropriation of \$10,000 by the Second Special Session of the Legislature in 1934, this office made detailed topographic surveys of ten reservoir and dam sites on Anthracite, Muddy, Castle, Carr, Roan, Smith Fork and Willow Creeks, and is now preparing maps, plans and estimates of costs for the development of these reservoir sites. If constructed, they would provide greatly needed supplemental water supplies for a large section of one of the finest developed agricultural districts of the state. In this connection, the U. S. Geological Survey co-operated in the mapping of several other reservoir sites on tributaries of the Roaring Fork, Lake Fork, Gunnison and Yampa Rivers. Similar investigations, including detailed analysis of water supplies, available for consumption, should be extended throughout the Colorado River basin in Colorado, to definitely ascertain the feasibility of providing much needed stream regulations and stabilization of the uses of water in the western part of the state, and to enable our people to take advantage of available Federal aid in the financing of their requirements. To assist in this program, the present session of the Legislature very wisely enacted much needed legislation for the creation of Public Irrigation Districts, which provides the essential machinery whereby the irrigationists may obtain Federal aid without the necessity of encumbering their water rights, water systems, etc. The Act creates a Board of Conservation, consisting of the Governor, Attorney General and State Engineer, with power to pass upon such proposed districts. In addition to such studies, this office compiled for the State Planning Commission an extensive report on the water supplies of the state, present uses and deficiencies, and an outline of a comprehensive plan for the conservation and use of our water supplies to meet present and future requirements of the state.

CHAPTER V

DAM CONSTRUCTION AND REPAIRS

Due very largely to the shortage of water supplies and the effects of the depression, construction of new storage reservoir dams and repairs to existing dams were comparatively nominal in amount during the biennium. Such improvements were almost entirely limited to necessary repairs.

The Town of Englewood undertook the construction of a small earth flood control dam as a Federal relief project, but did not complete the same.

A larger earth dam financed in the same manner and for the same purpose was practically completed across Horse Creek by the Town of Holly.

A reinforced concrete spillway around the end of the Continental Reservoir dam was completed in 1933, at a cost of approximately \$30,000, which will now permit of the use of the full capacity of that reservoir.

Another important improvement consisted of the replacement of the old forty-eight inch wood stave pipe line, from Clear Creek to the Santa Maria Reservoir, by an eighty-four inch steel pipe line. This project cost about \$285,000, which was financed through a loan from the Public Works Administration. This improvement, which was completed in the fall of 1934, will very greatly increase the efficiency of the reservoir, and provide additional safeguards against failures in service.

The high pressure valves in the Terrace Reservoir were also repaired and placed in serviceable condition.

Similar repairs were made to the valves in Lake Cheesman, which removed a menace to the water supply furnished by that most important unit of the municipal water system of the City of Denver.

Several small earth and masonry dams were also completed within the biennium.

A rock fill dam about 45 feet in height, provided with a steel face and designed for diverting water through Independence Pass Tunnel, was completed at the close of 1934. This dam is located across Lincoln Gulch at an altitude of 10,500 feet above sea level.

With but one important exception, no dam failures occurred in the state during the past two years. On the night of August 3, 1933, following the heaviest rainfall over the upper Cherry Creek basin ever recorded, the Castlewood Dam, located across Cherry Creek about thirty-five miles above Denver, collapsed as the result of being

overtopped the entire length thereof to a depth of nearly one and one-half feet. Fortunately, ample warning to the residents of Cherry Creek Valley and in Denver limited the loss of life to but two persons, who lost their lives through curiosity or fear. At the time the flood struck, the reservoir contained about 1,800 acre feet. The stage of water in the reservoir rose within a few minutes' time to a point where the dam was overtopped and destroyed within less than an hour's time. The resulting flood caused serious damage to lands and growing crops along Cherry Creek Valley, and a loss of possibly three-quarters of a million dollars to bridges, warehouse stocks and railroad property within the City of Denver.

This disaster crystallized former attempts looking to the removal of the menace of floods occurring in the Cherry Creek basin, in the organization of the Cherry Creek Flood Control District within the city limits, and the preparation of plans for a large retention reservoir to be located on this stream about six miles above the city. Plans and specifications for this dam and appurtenant works were approved by this office early in 1935, and it is expected that the construction of the dam will be under way by next May. This important structure, to be known as Kenwood Dam, will consist of an earth embankment about 5,000 feet in length and of a maximum height of about 50 feet, which will provide a reservoir of a capacity of 10,000 acre feet at spillway level. The outlet conduit will have a maximum discharge capacity of about 9,000 second feet. There will be no control valves or gates in the outlet conduit, the purpose being to temporarily impound high peak flows and limit the flow through Denver to about 10,000 second feet. The contents of the reservoir will be discharged within a period of not to exceed two days. As an extra safeguard to the dam, a reinforced concrete spillway with a capacity of 17,500 second feet will carry the excess inflow to the reservoir around the dam.

The plans for this project provide rather unusual safeguards against clogging of the outlet conduit by floating timber and other debris, and against the undermining of the dam and appurtenant works. The estimated cost of this development is about \$800,000, which will be financed by a grant of \$204,000 by the Public Works Administration, a general bond issue of \$295,000 and an issue of local improvement district bonds in the amount of \$295,000. It is anticipated that the work will be completed in 1936.

Plans and specifications, covering the construction of the Crystal Creek Dam by the City of Colorado Springs, were approved by this office in the fall of 1934, and work is now in progress. This dam is being constructed on the northeast slope of Pikes Peak, at an altitude of about 9,200 feet, to provide supplemental water supplies for domestic and power purposes. The structure will consist of a con-

solidated earth and gravel embankment about 100 feet in height. A rather unusual feature of the plans consists of an electrically welded steel diaphragm one-fourth inch in thickness overlying the upstream or water face of the dam. This steel diaphragm will connect with the foundations upon which the dam will rest, by means of reinforced concrete cutoff walls. Impervious contacts with the natural formation will be provided by means of deep pressure grouting. The estimated cost of this development is about \$350,000, which is being partially financed by a loan and grant from the Public Works Administration.

Plans for the large Taylor Park Reservoir, to provide supplemental water supplies for the Uncompahgre Valley Reclamation project, are now being prepared by the U. S. Bureau of Reclamation, and it is anticipated that construction of this dam at an estimated cost of about \$2,000,000 will be commenced in 1935.

CHAPTER VI

IRRIGATION DISTRICTS ORGANIZED UNDER ACT OF 1921

The following named seven Irrigation Districts have been organized in the state under the provisions of the Act of the Legislature of 1921:

Agate	Maybell
Bent County, Colorado	Pioneer
Box Elder Valley	Trinchera
Del Norte	

With the exception of the latter district, no annual reports for 1933 and 1934 have been filed with the State Engineer, who is Chairman of the State Irrigation Commission. The Eleventh and Twelfth Annual Reports for 1933 and 1934, filed by the Trinchera Irrigation District, disclose the following pertinent information:

1933

Assets	\$1,220,000.00
Total bonds due and outstanding January 1, 1934.....	\$480,520.94
Total interest due and outstanding January 1, 1934.....	171,734.22
Total outstanding warrants, face value, January 1, 1934....	15,557.80
Total	<u>\$667,812.96</u>

1934

Assets	\$1,220,000.00
Total bonds due and outstanding January 1, 1935.....	\$478,970.90
Total interest due and outstanding January 1, 1935.....	171,533.36
Total outstanding warrants, face value, January 1, 1935....	15,425.60
Total	<u>\$665,929.86</u>

The Bent County Colorado Irrigation District applied to the Reconstruction Finance Corporation for a loan of approximately \$500,000 for extending and enlarging its present irrigation works and for refunding some of its outstanding obligations. This application was transferred to the Public Works Administration, which finally required that, prior to the approval of the application, it

would be necessary for the Legislature to enact legislation which would make Irrigation District bonds, at the option of the land owners, a blanket obligation. Such legislation was passed, but other objections, later raised, have delayed the granting of the application.

It is our understanding that the Maybell Irrigation District also applied to the Reconstruction Finance Corporation for funds to refinance the outstanding obligations of that District, which are very nominal.

The Box Elder Valley Irrigation District, which was approved in 1934, has applied to the Public Works Administration for \$210,500 with which to finance its undertakings, with good prospects that the application will be approved.

Within the biennium, the Del Norte Irrigation District was preparing to apply to the Reconstruction Finance Corporation for a loan of \$175,000 for refinancing their outstanding bond issue of \$350,000.

CHAPTER VII

LEGISLATION

Several Bills in which this office is interested have been introduced in the Thirtieth Session of the Legislature, which, if enacted into laws, it is believed will be beneficial in the administration of the functions of this office. These proposed measures cover such matters as the policing of water released from reservoirs, employment of special deputies by the State Engineer for the more efficient policing of the natural streams of the state during critical periods of stream flow, and making an appropriation therefor, and for the appointment by the State Engineer of consultants in connection with the approval of storage dams of a maximum height of more than fifty feet, granting rights-of-way over private, corporate and state lands for the installation and maintenance of stream gaging stations and records of stream flow.

CHAPTER VIII

INTERSTATE RIVER NEGOTIATIONS

On January 24, 1933, the State Engineer by Executive Order was appointed Interstate River Commissioner, with authority "to represent the State of Colorado upon any and all Joint Commissions to be composed of Commissioners representing other states, for the purpose of negotiating interstate compacts, and at any and all conferences in relation thereto, particularly having to do with the waters of the Laramie, Colorado, La Plata, South Platte, Arkansas, Rio Grande and North Platte Rivers." This responsibility added greatly to the already heavy duties of this office.

Previous to this appointment, negotiations had been going on for some years between the States of Colorado, Wyoming and Nebraska, looking to a compact for the equitable division of the waters of that stream.

During 1933 this office caused engineering investigations and studies to be made to determine the quantity of water which it might be feasible to divert out of the North Platte River and tributaries in Colorado, into the Laramie and Poudre Rivers, and the probable cost of such diversions. Such investigations and studies disclosed projects, based upon diversions of from 50,000 to 180,000 acre feet annually, to be feasible both from an engineering and economic standpoint.

Many conferences were held with the representatives of Wyoming and Nebraska, in Cheyenne, Greeley, Denver and Washington, D. C., in an effort to reach an understanding looking to an interstate compact, but without success. In the meantime, the Secretary of the Interior authorized the construction of the Casper-Alcova and Seminole projects on the North Platte River in Wyoming, and later approved loans by the PWA for the construction of the Sutherland project on that river in Nebraska.

As the result of an appeal from the officials of Colorado to the President for protection of an equitable share of the waters of the North Platte River against claims for the Casper-Alcova project in Wyoming, the Public Works Board held a hearing in Washington on August 8th, 1933, at which time the three states were heard through their Attorneys General and Interstate River Commissioners. The ruling of the Board, as announced by the Secretary, being unsatisfactory to Colorado, resulted in another tri-state conference in Washington, which, among other matters, requested the State Engineers of the three states to make a joint study of the total available water supply furnished by the North Platte River system, present and future demands upon the same in the three states, and the surplus, if any, accruing above Pathfinder Reservoir, Wyoming. Following a critical and detailed study of the problem, the representatives of the three State Engi-

neers assigned to this task, signed a joint report showing that the surplus water above Pathfinder Reservoir fully justified Colorado's claim to at least 50,000 acre feet for transmountain diversions.

During these negotiations, objections to transmountain diversions out of North Park had been interposed by some of the water users in North Park. To meet such objections, investigations were conducted by this office to determine the feasibility of diverting water from Douglas Creek, a tributary of the North Platte in Wyoming, to the Laramie River and, through exchange, increase present diversions out of the Laramie River to the Poudre River basin. These studies disclosed that diversions from Douglas Creek to the Laramie River, in an average annual amount of about 50,000 acre feet, are entirely feasible. The plan proposed would increase the present yearly water supply of the Laramie River for uses in Wyoming by about 15,000 acre feet, and permit 35,000 acre feet of additional diversions from the Laramie to the Poudre River. Upon this basis, an understanding was reached with the representatives of Wyoming, but, due to the opposition of the sponsors of the Casper-Alcova project, in which they were supported by the Commissioner of the United States Bureau of Reclamation, Wyoming declined to continue negotiations.

Meetings were resumed between the representatives of Colorado, New Mexico and Texas in 1934, for the purpose of negotiating a permanent Compact on the Rio Grande to replace the temporary present Compact, which by its own terms will expire on June 1, 1935. The joint Commission appointed by the Governors of the three states has held two sessions under the chairmanship of the representative of the President of the United States, at which Colorado presented a great mass of basic data, and the results of our studies during the past four years, in support of the claims of our citizens. After full consideration and study of the data presented by Colorado has been had, it is anticipated that a plan may be evolved which will provide the basis for an interstate compact, which in turn will provide the necessary degree of assurance required by New Mexico and Texas, and at the same time remove the objections of our sister states to the right of our own citizens in the San Luis Valley to have the same degree of regulation and control of their water supplies, now enjoyed by those in the lower states.

Plans to this end involve additional reservoir development of large capacity in Colorado, and additional accretions to the common water supply, which may be had through the construction of drainage systems in the San Luis Valley, and more efficient regulation and use of waters in the lower basin. An integral part of such plans for the systematic regulation and use of all the available water furnished by the Rio Grande system, is the recovery of water now lost through evaporation from the Closed Basin area of the San Luis Valley.

Investigations conducted by this office in recent years disclose that comparatively large amounts of water may be recovered from this source through the construction of a drainage canal some forty miles in length. In response to an application by the Governor, Attorney General and State Engineer in 1933, the Public Works Administration allocated the sum of nine hundred thousand dollars to build this drainage canal, under certain requirements however, which the residents of the San Luis Valley may not be able to meet. The subject involves many complicated problems, both interstate and intrastate in character, the equitable and constructive solution of which will require much careful study and no small degree of patience and persistence on the part of all concerned.

Informal negotiations were begun last fall between representatives of the Governors of Colorado and Nebraska for a compact to cover the waters of the North and South Forks of the Republican and Arickaree Rivers in eastern Colorado. While the Legislature of Nebraska early in the present session authorized the negotiation of such a compact with Colorado, the Legislature of this state has so far failed to take similar action, although it is confidently expected to do so. In the meantime, the State Engineer prepared a draft for a compact and submitted the same to the officials of Nebraska some months ago.

A form of contract between the State of Arizona and the Secretary of the Interior, providing among other things for the delivery up to 2,800,000 acre feet of water annually, out of Boulder Canyon Reservoir for use in Arizona, was vigorously opposed in written briefs filed with the Secretary and by oral argument by representatives of practically all the state signatory to the Colorado River Compact. As the result of these objections, the Secretary declined to execute the proffered contract, but suggested that the seven basin states try to reach an understanding which would eliminate the opposition of the signatory states to a contract between him and the State of Arizona. Following such suggestion, a conference of the Attorneys General, Interstate River Commissioners and advisers from the seven Colorado River basin states was convened at Salt Lake City on February 25, 1935, and after four days of effort, drafted a new contract for the consideration of the Secretary and the Legislature of Arizona. It is hoped that, through such means, the interests of the signatory states, under the provisions of the Colorado River Compact and the Boulder Canyon Project Act, will be conserved and that Arizona will obtain recognition of the right to an equitable share of the waters of the Colorado River.

There is urgent need at this time for an interstate compact between Colorado and Wyoming, covering the Snake River and tributaries, in the interest of effective and proper administration of existing appropriations of water from these streams in both states, and for the purpose of encouraging and protecting orderly development of new projects in that area.

CHAPTER IX

INTERSTATE LITIGATION

Testimony in the case of Wyoming vs. Colorado, over the waters of the Laramie River, was concluded in 1932. Briefing of the testimony and preparation of the narrative of the proceedings have occupied the attention of the attorneys in the case during the past biennium, and it is now anticipated that the case will be ready for presentation to the Supreme Court at an early date.

In the case of Colorado vs. Kansas, over the waters of the Arkansas River, Kansas completed its testimony in 1933. Colorado has submitted the major part of its case in rebuttal and expects to conclude the same at an early date. It is hoped that the record in this noted suit will have been completed by June 30, 1935, or soon thereafter.

In this connection, the representatives of the two states have entered into a stipulation which provides the basis for a consent decree, contingent upon the construction of the Caddoa Dam, and the equitable division between the two states of the additional water which would be provided for use in both states by such construction. In this connection, it may be stated that the Caddoa Dam project has been approved by the U. S. Army Engineers, the Arkansas Basin Committee, representing the seven states in the Arkansas River basin, the Projects Committee of the National Rivers and Harbors Congress, and the Mississippi Valley Committee as being sound and desirable from an engineering and economic standpoint. The project was given a Class A rating by the latter Committee.

In the fall of 1934, the State of Nebraska filed its original Bill of Complaint in the Supreme Court of the United States against the State of Wyoming, in which Nebraska asks the Court—

1. "To require that Wyoming, in the administration of waters of the North Platte River, should deny water to her direct flow water users having junior priorities when water is needed by senior Nebraska appropriators;
2. "To require that Wyoming prevent her appropriators for storage from taking water for such purposes when the water is needed by senior Nebraska appropriators;
3. "To prevent Wyoming from allocating to a new irrigation project, known as 'Casper-Alcova Project,' a 1904 priority when, as Nebraska claims, it is only entitled to a 1934 priority, and many Nebraska projects of priority of 1904 and later would be deprived of water in the administration of the stream with a 1904 priority for Casper-Alcova Project;

4. "As an incident to said direct relief, and in order to provide an exact basis for a decree covering the administration of the stream in the future, to fix and determine the respective priorities on the stream of Nebraska and Wyoming appropriators."

In its Demurrer and Motion to Dismiss, Wyoming, among other things, claims that Colorado and the Secretary of the Interior are necessary parties to this action.

The State of Nebraska, in its Answer to Wyoming's Motion to Dismiss, asserts that, "since no relief is asked by complainant as against the State of Colorado, and since the State of Colorado has no interest in the relief asked, as against the State of Wyoming, or in the controversy between the State of Nebraska and the State of Wyoming, the State of Colorado is not a necessary or indispensable party."

The court has not as yet ruled on the question of whether Colorado is an indispensable party or on Wyoming's Motion to Dismiss.

CHAPTER X

ADMINISTRATION OF INTERSTATE COMPACTS

During the biennium, this office administered the La Plata River Compact under more than the usual trying conditions, resulting from deficient water supplies, with little or no friction with our sister state of New Mexico. This happy result is due almost wholly to the good judgment of the local administrative officials and to the patience and tolerance of the water users in both states. The only litigation which has occurred as a result of the Compact was instituted by the La Plata River and Cherry Creek Ditch Company, one of the principal water users in Colorado. This action has been discussed previously in this report.

The Rio Grande Compact Committee, under the provisions of the Rio Grande Compact, continued to collect data on the flow of the Rio Grande in the three states. The regular January meetings of the Committee, required by the Compact, were held in Santa Fe, at which time all data was exchanged, verified and received for filing, after which the Committee prepared and submitted its annual reports to the Governors of the signatory states.

The South Platte River Compact with Nebraska was administered, as usual, without friction and with no complaints from the officials of Nebraska.

CHAPTER XI

HYDROGRAPHIC AND STREAM GAGING WORK IN
COLORADO

By L. T. Burgess, Chief Hydrographer

The most valuable natural resource of this state is its water supply. The hydrographic branch of this Department is charged with the duties of determining and recording the quantity of water furnished by the streams of the state, and of rating canals, ditches and reservoir inlets and outlets, for administrative purposes. There are now maintained in the state a total of 140 stream gaging stations, each of which is equipped with an automatic recording instrument. These gaging stations are located in the following drainage basins:

North and South Platte River Basin.....	.....
.....	Irrigation Division No. 1—44 stations.
Arkansas River Basin.....	.....
.....	Irrigation Division No. 2—18 stations.
Rio Grande River Basin.....	.....
.....	Irrigation Division No. 3—26 stations.
Colorado River Basin.....	.....
.....	Irrigation Division No. 4—34 stations.
Green River Basin.....	.....
.....	Irrigation Division No. 6— 7 stations.
San Juan River Basin.....	.....
.....	Irrigation Division No. 7—11 stations.

State records of stream flow cover periods from 1881 to date, and at many stations such records are continuous for more than forty years. These records of water supply and uses become of increasing value with the passage of time, and are absolutely essential to an intelligent use and administration of the water supplies of the state.

On October 1, 1933, this office resumed its co-operation with the U. S. Geological Survey in stream gaging work, after a lapse of several years. A large part of the stream gaging work in the western part of the state is now carried on by the Survey. All hydrographic work in the eastern part of the state, including the South Platte, Arkansas and Rio Grande basins, is carried on by this Department. Through the co-operation between the two Departments, the U. S. Geological Survey now contributes seventy-five cents for every dollar of state expenditures for stream gaging alone. The funds of the Survey are expended for Government hydrographers' salaries, traveling expenses, gage readers' salaries,

equipment and supplies. No canal or ditch measurements are made by the Survey. All such measurements, required for administrative purposes, are made by this Department.

The annual expenditure from state funds, for stream gaging work, which includes salaries, traveling expenses, equipment, etc., amounts to approximately \$25,000. This amount is exclusive of sums spent for canal and ditch gagings, or any other similar expense incurred in the administration of the court decrees.

In addition to the above amount, \$18,750 was expended by the Survey on hydrographic work, making a total of approximately \$43,750 which was expended in the state during the period from July 1, 1934, to July 1, 1935. It is hoped that a similar sum will be available for use in the next biennium.

During the first year of this co-operation, covering the period October 1, 1933, to October 1, 1934, this Department spent a total of about \$22,500 for stream gaging work alone. The U. S. Geological Survey spent \$16,300 for similar purposes, making a total of about \$38,800 actually expended on stream gaging work in the state. Through this co-operation additional gaging stations have been installed, and more and better records are being obtained. Since the Survey does a part of the field and office work, the state hydrographers have been slightly relieved, and can now devote more time to hydrographic work necessary to the distribution of the water supplies of the state.

An added phase of the co-operation, not wholly anticipated at the time the original agreement was entered into, is reflected in the comprehensive construction program recently completed. The Public Works Administration allocated to the State of Colorado and the U. S. Geological Survey \$6,500 for the rehabilitation of existing gaging stations. None of this amount was spent in the installation of new gaging stations. At the same time the Civil Works Administration was seeking suitable projects on which to employ labor. A state project was created whereby the CWA furnished all skilled and unskilled labor, plus 20% of the total cost for materials. By combining the CWA projects with the amount of \$6,500 from the PWA for purchase of materials, this Department was able to rebuild 56 automatic shelter houses at 52 gaging stations, and to erect 24 cable gaging stations.

Of the total number of automatic register shelter houses constructed, 42 are of the large or standard size, and 14 are of the smaller type standardized by the U. S. Geological Survey.

On account of the above project, the Survey expended about \$5,200 for the purchase of equipment and materials, and about \$1,200 for labor and supervision of same. A total of approximately \$3,900 was expended for skilled and unskilled labor, and an additional amount of \$780 was expended for the purchase of materials furnished through the CWA project.

In addition to the amounts received from the PWA allotment, the Survey spent about \$4,625 for materials used in the construc-

tion of stream gaging stations. Labor for these stations was furnished through the FERA, successor to the CWA. Through the coordination of the PWA allotment and the CWA and FERA projects, the state received a total of about \$15,700 for materials and labor, which went into new stream gaging station equipment, without cost to the state. The only expense incurred by the State Engineer's office was that for salaries and traveling expenses of the state hydrographers who supervised the construction work. As this work was carried along with their regular hydrographic duties, no additional help was required for the supervision of the work. All construction on these stations was completed between January and November, 1934.

New and rebuilt gaging stations grouped by river drainage areas are as follows:

North and South Platte River Drainage—15 gage shelters and 2 cable stations.

Arkansas River Drainage—8 gage shelters and 4 cable stations.

Rio Grande Drainage—11 gage shelters and 6 cable stations.

Colorado River Drainage—17 gage shelters and 10 cable stations.

Green River Drainage—2 gage shelters.

San Juan River Drainage—3 gage shelters and 3 cable stations.

The construction program was arranged so as to rebuild the most important gaging stations first, and secondary gaging stations which were in the greatest need of replacement. With the construction of several more stations all gaging stations in this state will be in excellent condition. In addition to the new automatic shelterhouses and cable stations, 14 new Stevens Type A-30 continuous water stage recording instruments were installed at all interstate and at other important stations. These recorders were purchased by the Survey as a part of its co-operation.

Two additional CWA projects were obtained through which assistants were furnished to bring the office records up to date and to compile additional data. These assistants were used to good advantage in working up yearly stream flow data, since all of the hydrographers of this Department were out in the field most of the time during the winter and spring on construction and stream gaging work.

The Hydrographic Department has been exceptionally busy during the past biennium supervising the installation of Parshall measuring flumes in ditches and reservoir outlets throughout the state. Such supervision is essential to the proper location and installation of this type of measuring device, since it eliminates many errors and insures proper operation of the flumes under practically all conditions. The tendency among ditch companies is to place these flumes too low in elevation, which causes them to operate under submerged conditions at high flows, or when the

ditch becomes more or less foul with sandbars and the growth of aquatic plant life.

In the Arkansas River basin, between Pueblo and the Colorado-Kansas state line, all canals diverting water from the river proper have been equipped with Parshall flumes. The majority of such structures are of reinforced concrete, although some smaller ones have been built of treated timber. These flumes have throat widths ranging in size from 2 to 40 feet, and measure as high as 2,000 cubic feet of water per second of time. During the last two years, many of such measuring flumes have also been installed on ditches along the tributaries.

Parshall measuring flumes are now being installed on the upper river ditches and along the tributaries thereof.

Scarcity of water, combined with increasing efficiency in the administration of the water decrees of the state, have demanded in recent years better measuring devices on practically all ditches.

The South Platte River basin is now well served with Parshall flumes on practically all the main ditches, both on the river and tributaries. The majority of the ditches on the river, from the mouth of the canyon above Denver, to the Colorado-Nebraska state line, have installed this type of measuring device, together with automatic water stage recording instruments. Approximately 30 Parshall flumes, of concrete or treated timber, were installed on ditches in Water Districts 5 and 6 within the past six months. The throat widths of these structures varied from 2 to 20 feet. Other installations will be made throughout the basin during the present year.

Installations of Parshall flumes on the Western Slope have been somewhat slower than on the Eastern Slope, due to more plentiful water supplies and the lesser need for an accurate accounting of the same. However, during the last three years many installations have been made.

It is now estimated that approximately 700 Parshall flumes are installed on the main ditches throughout the state, and an even larger number on the lateral systems.

The question of the accuracy of this type of measuring device has been raised from time to time. In this connection we have analyzed the records of current meter measurements of Parshall flumes of all sizes in this state. Forty-one measurements in flumes having throat widths of from two to forty feet, with discharges of from 4 to 1,378 cubic feet per second, and in several instances where the submergence at the time of the measurement was as high as 90%, disclosed an average deviation from the discharge as computed by formula, to be 1.65%. This would appear to remove any doubt as to the accuracy of this type of measuring device.

Additional transmountain diversions of water from one drainage basin to another have placed increased demands on the Department. Proper supervision of measuring devices and constant

checking of the same by current meter measurements require the expenditure of much time and effort. Difficulty of access to various gaging stations often necessitates trips on snowshoes or skis during the early spring and summer months. Accounting for transmountain water diversions in the Arkansas and South Platte drainage basins has gradually increased yearly until today it requires considerable part of the hydrographers' time.

The need for additional data on stream flow in connection with proposed transmountain diversions has required the establishment of many new stations, several of which will be established during the coming spring.

No additional appropriations have been made available by the legislature to meet these increasing demands on the Hydrographic Department, but as the canals and ditches are gradually equipped with Parshall measuring flumes, additional attention can be given to the extension of stream gaging work throughout the state, particularly on the tributaries of the main streams where small reservoir development is in great demand.

CHAPTER XII

DESCRIPTIONS OF
STREAM GAGING STATIONS
AND
TABLES OF STREAM DISCHARGE

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO.

Stream	Location	Irrigation Division	Years of Record Inclusive
*Alamosa River.....	Terrace Reservoir Outlet...	3	1909 to 1912, 1915 to 1934
Alamosa River.....	Above Terrace Reservoir...	3	1915 to 1919, 1924 to 1927
Alamosa River.....	Above Terrace Reservoir at Jasper	3	1932-1933
*Animas River.....	Durango	7	1895 to 1905, 1910 to 1934
Animas River.....	Silverton	7	1903
Animas River.....	Tacoma	7	1908, 1909, 1916 to 1927
Apishapa River.....	Mouth	2	1922 to 1925
Arkansas River.....	Boone	2	1916
*Arkansas River.....	Canon City.....	2	1888 to 1934
Arkansas River.....	Ft. Lyon.....	2	1911
Arkansas River.....	Granada	2	1903
*Arkansas River.....	Granite	2	1897, 1898, 1910 to 1934
*Arkansas River.....	Holly (State Line).....	2	1907 to 1934
*Arkansas River.....	La Junta.....	2	1889, 1903, 1912 to 1934
*Arkansas River.....	Lamar	2	1913 to 1934
Arkansas River (E. Fk.)...	Leadville	2	1890, 1911 to 1924
*Arkansas River.....	Nepesta	2	1898 to 1904, 1906 to 1910, 1912, 1914 to 1934
Arkansas River (S. Fk.)...	Poncha	2	1911 to 1918
*Arkansas River (S. Fk.)...	Mouth (Salida).....	2	1922 to 1924, 1929 to 1934
Arkansas River.....	Powers	2	1898, 1900, 1903
*Arkansas River.....	Pueblo	2	1885 to 1887, 1894 to 1934
Arkansas River.....	Rock Canon.....	2	1889
Arkansas River.....	Rocky Ford.....	2	1901 to 1903
*Arkansas River.....	Salida	2	1895, 1897 to 1903, 1909 to 1934
Bear Creek.....	Morrison	1	1887 to 1891, 1895 to 1901
*Bear Creek.....	Mouth	1	1914, 1927 to 1934
Bear Creek.....	Idledale (Starbuck).....	1	1919 to 1934
Beaver Creek.....	Avon	5	1911
Beaver Creek.....	Fairplay	1	1917
Beaver Creek.....	Ladore	6	1910, 1911
Beaver Creek.....	Mouth (In Wyoming).....	..	1912
Beaver Creek (West).....	Near Victor.....	2	1905 to 1927
Big Creek.....	Near Big Creek, Wyoming..	..	1915 to 1919
Big Creek.....	Steamboat Springs.....	6	1918 to 1919
*Big Cascade Creek.....	Tacoma	7	1915 to 1934
*Big Grizzly Creek.....	Hebron (Walden).....	1	1904 to 1905, 1923, 1927 to 1934
Big Jim Creek.....	Fraser	5	1907 to 1909
Big Sandy Creek.....	Hugo	2	1910 to 1912
Big South Cache la Poudre.	Home	1	1929 to 1931
Big Thompson River.....	Arkins	1	1887 to 1892, 1895 to 1900, 1902 to 1911
*Big Thompson River.....	Mouth	1	1914, 1927 to 1934
Big Thompson River.....	Drake	1	1917 to 1933
*Big Thompson River.....	Below Power Plant near Drake	1	1929 to 1934
*Big Thompson River.....	Near Estes Park.....	1	1930 to 1934
*Blue River.....	Dillon	5	1910 to 1934
Blue River.....	Kremmling	5	1904 to 1908
Boehmer Creek.....	Pikes Peak.....	2	1918, 1919
Boulder Creek.....	Boulder	1	1889 to 1892 (1896 to 1901), 1904 to 1908
*Boulder Creek.....	Mouth	1	1927 to 1934
*Boulder Creek (Middle)...	Nederland	1	1907 to 1934
Boulder Creek.....	Near Nederland.....	1	1929 to 1931
*Boulder Creek.....	Orodel (above 4 Mile Creek)	1	1887 to 1888, 1907 to 1914, 1916 to 1934
Boulder Creek (North)...	Silver Lake.....	1	1913 to 1926
Brown Creek.....	Trinidad Water Works.....	2	1923
Brush Creek.....	Eagle	5	1911, 1912
Buffalo Springs, Branch...	63 Ranch.....	2	1917
*Buzzard Creek.....	Collbran	4	1921 to 1934
Cache la Poudre River.....	Elkhorn	1	1909 to 1911
Cache la Poudre River.....	Ft. Collins Water Works...	1	1909 to 1911
Cache la Poudre River.....	Log Cabin.....	1	1929 to 1931
*Cache la Poudre River.....	Greeley (Mouth).....	1	1903, 1904, 1914 to 1919, 1924 to 1934
Cache la Poudre River (Little South).....	Eggers	1	1929 to 1931

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
Cache la Poudre (Big South).....	Near Home.....	1	1929 to 1931
*Cache La Poudre River.....	Mouth of Canon.....	1	1881, 1884 to 1934
Cache la Poudre (N. Fk.).....	Livermore.....	1	1929 to 1931
Canadian River.....	Cowdrey.....	1	1904, 1905, 1929 to 1931
Canon Creek.....	Ouray.....	4	1911 to 1915
Carmel Drainage Ditch.....	Main Outlet.....	3	1915 to 1920
*Carnero Creek.....	La Garita.....	3	1919 to 1934
Castle Creek.....	Aspen.....	5	1913 to 1920
Catlin Canal (Waste).....	At Timpas Creek.....	2	1927
Cement Creek.....	Crested Butte.....	4	1910 to 1913
Chalk Creek (Upper Sta.).....	St. Elmo.....	2	1914 to 1919
Chalk Creek (Lower Sta.).....	St. Elmo.....	2	1911 to 1916
*Cherry Creek.....	Red Mesa (Mouth).....	7	1928 to 1934
Cherry Creek.....	Trinidad Water Works.....	2	1923
Cimarron Creek.....	Cimarron.....	4	1903 to 1905
*Clear Creek (North).....	Below Continental Reservoir	3	1929 to 1934
Clear Creek.....	Creede.....	3	1910
Clear Creek (West Fk.).....	Empire.....	1	1929 to 1931
Clear Creek.....	Forkscreek (7 mi. above Golden).....	1	(1887 to 1888, 1899 to 1912)
*Clear Creek.....	Golden (above).....	1	1909, 1911 to 1934
Clear Creek.....	Granite.....	2	1890, 1907 to 1909
Clear Creek.....	Idaho Springs.....	1	1910 to 1912
*Clear Creek.....	Mouth.....	1	1914, 1927 to 1934
*Colorado River.....	Granby.....	5	1908 to 1911, 1934
Colorado River.....	Kremmling.....	5	1904 to 1918
*Colorado River.....	Hot Sulphur Springs.....	5	1904 to 1924, 1926 to 1934
Colorado River.....	Wolcott.....	5	1906 to 1908
*Colorado River.....	Glenwood Springs.....	5	1900 to 1934
Colorado River.....	Palisade.....	4	1902 to 1933
*Colorado River.....	Cameo.....	4	1934
Colorado River.....	Grand Junction.....	4	1897 to 1899
Colorado River.....	Fruita.....	4	1908 to 1923
*Colorado River.....	Cisco, Utah.....	..	1914 to 1916, 1923 to 1934
*Colorado River.....	Lees Ferry, Arizona.....	..	1921 to 1934
*Colorado River (N. Fk.).....	Near Grand Lake.....	5	1934
*Conejos River.....	Mogote.....	3	1900, 1903 to 1934
*Conejos River.....	Mouth (No. & So. Channels)	3	1921 to 1934
Cottonwood Creek (N. Fk.).....	Near Buena Vista.....	2	1911 to 1914
Cottonwood Creek.....	Below Crestone Branch D. & R. G. W. R. R.....	3	1915
Cottonwood Creek (Mid. Fk.).....	Near Buena Vista.....	2	1890
Cottonwood Creek.....	Below Hot Springs (near Buena Vista).....	2	1911 to 1923
Cottonwood Creek (So. Fk.).....	Below Hot Springs (near Buena Vista).....	2	1890
Crestone Creek (north).....	Near Crestone.....	3	1915
Crestone Creek (south).....	Near Crestone.....	3	1915
Crooked Arroyo.....	Mouth.....	2	1922 to 1925
Crystal River.....	Carbondale.....	5	1908 to 1909
Crystal River.....	Marble.....	5	1910 to 1917
Crystal Creek.....	Maher.....	4	1917 to 1919
*Cucharas River.....	Near La Veta.....	2	1923 to 1934
Culebra River.....	Chama.....	3	1924 to 1926
*Culebra River.....	San Luis.....	3	1909 to 1919, 1927 to 1934
Dallas Creek.....	Ridgway.....	4	1922 to 1927
Deadman Creek.....	Below East Boundary Baca Grant.....	3	1915
*Del Norte Irrig. Dist. Ditch.....	.....	3	1931 to 1934
*Dolores River.....	Dolores.....	7	1895 to 1903, 1910 to 1912, 1922 to 1934
Dolores River.....	Bedrock.....	7	1918 to 1923
Dolores River.....	Rico.....	7	1919 to 1921
Eagle River.....	Eagle.....	5	1905, 1906, 1911 to 1924
Eagle River.....	Below Brush Creek.....	5	1905

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
Eagle River.....	Gypsum	5	1907 to 1909
Eagle River.....	Red Cliff.....	5	1911 to 1925
East Elk Creek.....	New Castle.....	5	1911 to 1913, 1915
*East River.....	Almont	4	1905, 1910 to 1913, 1916 to 1922, 1934
Elk Creek.....	Fraser (Upper Sta.).....	5	1907 to 1909
Elk Creek.....	New Castle.....	5	1922 to 1924
Elk Head Creek.....	Craig	6	1906, 1910 to 1918
Elk Head Creek.....	Hayes Ranch.....	6	1910
Elk Head Creek (N. Fk.).....	Hayes Ranch.....	6	1910, 1920
Elk Head Creek (E. Fk.).....	Hayes Ranch.....	6	1920
*Elk River.....	Clark	6	1910 to 1922, 1930 to 1934
Elk River.....	Trull	6	1904 to 1906, 1910 to 1927
Elk River.....	Hinman Park.....	6	1912 to 1918
Escalante Creek.....	Delta	4	1922, 1923
*Fall River.....	Idaho Springs.....	1	1930 to 1934
Fish Creek.....	Dunkley	6	1910, 1911
Fish Creek.....	Steamboat Springs.....	6	1919 to 1920
*Florida River.....	Durango	7	1899, 1901 to 1903, 1910 to 1912, 1917 to 1924, 1927 to 1934
Forrester Creek.....	Mouth .....	..	1912
Fortification Creek.....	Craig	6	1905, 1906, 1910 to 1918
Fortification Creek.....	Above Mouth Little Bear...	6	1910
Fountain River.....	Pueblo	2	1922 to 1925
Fountain River.....	Colorado Springs.....	2	1922 to 1924
Fountain River.....	Manitou	2	1926
Four Mile Creek.....	Ranger Station (near Baggs)	6	1912 to 1923
Four Mile Creek.....	Mouth (Boulder Creek)....	1	1887
*Fraser River.....	West Portal	5	1911 to 1934
*Fraser River.....	Above West Portal.....	5	1934
Fraser River.....	Fraser (Upper Sta.).....	5	1908 to 1910
Fraser River.....	Fraser (Lower Sta.).....	5	1907 to 1909
Fraser River.....	Granby (Coulter).....	5	1904 to 1909
Frying Pan Creek.....	Basalt	5	1908 to 1909
Frying Pan Creek.....	Norrie	5	1911 to 1917
Frying Pan Creek (N. Fk.).....	Norrie	5	1911 to 1917
Frying Pan Creek.....	Thomasville	5	1911 to 1920
Geneva Creek.....	Grant	1	1908 to 1911, 1913 to 1918
*Goose Creek.....	Lake Cheesman.....	1	1899, 1925 to 1934
Goose Creek.....	Wagon Wheel Gap.....	3	1925 to 1926
Gore Creek.....	Minturn	5	1911
Grace Creek.....	Mouth	1	1912, 1913
Grand Lake (N. Inlet).....	Grand Lake	5	1905 to 1908, 1910 to 1912
Grand River.....	Wolcott	5	1906 to 1908
Grand Lake Outlet.....	Grand Lake	5	1904 to 1913
*Grand River.....	Near Granby.....	5	1908 to 1911, 1934
*Grand River (N. Fk.).....	Near Granby.....	5	1904 to 1918, 1934
*Grand River.....	Near Hot Sulphur Springs..	5	1904 to 1924, 1926 to 1934
Grand River (S. Fk.).....	Lehman	5	1907, 1908
Grand River.....	Near Kremmling.....	5	1904 to 1918
*Grape Creek.....	Westcliffe	2	1925 to 1934
Grape Creek.....	Mouth (near Canon City)...	2	1928
*Green River.....	Linwood, Utah.....	..	1929 to 1934
Green Horn Creek.....	Rye	2	1923
*Grizzly Creek (Big).....	Hebron (Walden).....	1	1904, 1905, 1923, 1927 to 1934
*Grizzly Creek (Little).....	(Hebron) Walden.....	1	1904, 1905, 1931 to 1934
Gunnison River.....	Cimarron	4	1903 to 1905
Gunnison River.....	Cory	4	1903 to 1905
*Gunnison River.....	Grand Junction.....	4	1897 to 1899, 1917 to 1930, 1931, 1934
Gunnison River.....	Gunnison	4	1911 to 1914, 1916 to 1928
Gunnison River (N. Fk.).....	Paonia	4	1922 to 1933
*Gunnison River (N. Fk.).....	Somerset	4	1934
Gunnison River (N. Fk.).....	Hotchkiss	4	1903 to 1905
Gunnison River.....	Iola	4	1900 to 1903
Gunnison River.....	River Portal	4	1905 to 1909, 1911 to 1916
Gunnison River.....	Whitewater	4	1902 to 1906

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
Half Moon Creek.....	Leadville	2	1911 to 1914
Hermosa Creek.....	Hermosa	7	1911 to 1914, 1920 to 1928
*Henson Creek.....	Lake City.....	4	1918, 1919, 1923 to 1930, 1931 to 1934
*Holly Drain.....	Holly, Colorado (State Line)	2	1924 to 1934
Homestake Creek.....	Red Cliff.....	5	1911 to 1918
Huerfano River.....	Malachite	2	1923
*Huerfano River.....	Manzanares Crossing.....	2	1923 to 1934
Huerfano River.....	Badito	2	1912, 1923 to 1925
Huerfano River.....	Huerfano	2	1924 to 1928
Huerfano River.....	Mouth	2	1922 to 1925
Hunter Creek.....	Aspen	5	1911, 1912
*Illinois Creek.....	Rand	1	1931 to 1934
*Illinois Creek.....	Walden	1	1917 to 1918, 1923 to 1934
Jimmy Creek.....	Mouth	1	1912
Johnson Creek.....	Mouth (in Wyoming).....	..	1912, 1913
*Kannah Creek.....	Whitewater	4	1917 to 1921, 1923 to 1934
Kerber Creek.....	Above Villa Grove.....	3	1911, 1912, 1923 to 1926
Kerber Creek.....	Below Villa Grove.....	3	1922
La Garde Creek.....	2 Miles Above Mouth.....	1	1912
La Garde Creek.....	Mouth	1	1913
*La Garita Creek.....	La Garita.....	3	1919 to 1934
*La Jara Creek.....	Above Capulin.....	3	1916, 1917, 1919 to 1930, 1932 to 1934
La Jara Creek.....	Mouth	3	1925 to 1932
Lake Creek.....	Below Twin Lakes.....	2	1890, 1899, 1900
Lake Creek.....	Interlachen	2	1900
Lake Fork.....	Leadville	2	1890, 1930
*Lake Fork of Gunnison River.....	Lake City.....	4	1918 to 1924, 1929, 1931 to 1934
*La Plata River.....	Hesperus	7	1904, 1906, 1910, 1917 to 1934
*La Plata River.....	State Line.....	7	1920 to 1934
*Laramie River.....	Glendevy	1	1904, 1905, 1910 to 1934
*Laramie River.....	Boswell's Ranch (Jelm).....	1	1904, 1905, 1911 to 1934
Laramie River.....	Below Laramie-Poudre Tunnel	1	1913
Laramie River (W. Br.).....	Mouth	1	1912
Left Hand Creek.....	Near Boulder.....	1	1929 to 1931
*Left Hand Creek.....	Mouth	1	1927 to 1934
Leroux Creek.....	Lasear	4	1917 to 1926
*Lightner Creek.....	Durango	7	1927 to 1934
Little Bear Creek.....	Skiles	6	1910
*Little Grizzly Creek.....	Walden	1	1904 to 1905, 1931 to 1934
Little Jim Creek.....	Fraser	5	1907 to 1909
Little Snake River.....	Dixon, Wyoming.....	6	1910 to 1923
*Little Snake River.....	(Maybell) Lily.....	6	1922 to 1934
Little Snake River.....	Maybell	6	1904
Little Snake R. (So. Fk.).....	Fleming	6	1923
Little Snake R. (Mid. Fk.).....	Gardner's Ranch.....	6	1912 to 1922
Little Snake R. (So. Fk.).....	Gardner's Ranch	6	1912 to 1922
Little South Cache la Poudre	Eggers	1	1929 to 1931
Little South Platte.....	Above Tumbling Creek.....	1	1917
Little South Platte.....	Main Road.....	1	1917
Little Thompson River.....	Near Berthoud.....	1	1929 to 1930
Lodgepole Creek.....	Ovid	1	1924
Lodgepole Creek.....	Mouth	1	1925 to 1926
Long Hollow.....	Red Mesa (at Mouth).....	7	1928 to 1929
*Los Pinos (Pine River).....	Above Bayfield.....	7	1926 to 1934
*Los Pinos River.....	Ignacio	7	1899 to 1903, 1906, 1910 to 1934
*Los Pinos River.....	Near Ortiz.....	3	1915 to 1920, 1925 to 1934
Lost Canon Creek.....	Dolores	7	1922 to 1927
Mad Creek.....	Steamboat Springs.....	6	1912 to 1917
Mancos River.....	Mancos	7	1898, 1899, 1921 to 1924

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
*Mancos River.....	Above Mancos.....	7	1932 to 1934
*Mancos River.....	Towaoc.....	7	1921 to 1934
Mancos River (West).....	Near Mancos.....	7	1910 to 1911
Maroon Creek.....	Aspen.....	5	1911 to 1917
Maroon Creek (Lower Station).....	Aspen.....	5	1914, 1915
Marvine Creek.....	Buford.....	6	1903 to 1906
McElmo Creek.....	Cortez.....	7	1926 to 1929
McIntyre Creek.....	Glenadevey.....	1	1913
McIntyre Creek.....	Gleneyre.....	1	1904, 1905, 1912, 1913
Michigan Creek.....	Cowdrey.....	1	1904, 1905
*Michigan Creek.....	Indland.....	1	1931 to 1934
*Michigan Creek.....	Walden.....	1	1904, 1905, 1918, 1923 to 1934
*Middle Boulder Creek.....	Nederland.....	1	1907 to 1934
Middle Ranch Creek (Lower Station).....	Arrow.....	5	1907 to 1909
Middle Ranch Creek (Upper Station).....	Arrow.....	5	1908, 1909
Milk Creek.....	Axial.....	6	1904, 1905
Morrison Creek.....	Yampa (Near Oak Creek)...	6	1927
Muddy River.....	Kremmling.....	5	1904, 1905
Muddy Creek.....	Baggs, Wyoming.....	6	1915, 1916, 1918
North Boulder Creek.....	Nederland.....	1	1929 to 1931
North Boulder Creek.....	Silverlake.....	1	1913 to 1926
Navajo River.....	Edith.....	7	1912 to 1929
Navajo River.....	Chromo.....	7	1911 to 1912
North Ranch Creek (Lower Station).....	Rollins Pass.....	5	1907 to 1909
*North Clear Creek.....	Below Continental Reservoir.....	5	1929 to 1934
North Ranch Creek (Upper Station).....	Rollins Pass.....	5	1908, 1909
North Crestone Creek.....	Crestone.....	3	1915
North Platte River.....	Cowdrey.....	1	1904, 1905
North Fork Cache la Poudre River.....	Livermore.....	1	1929 to 1931
*North Platte River.....	Hebron (Walden).....	1	1904, 1905, 1924 to 1934
North Platte River.....	Higby (Walden).....	1	1904, 1905, 1924 to 1928
*North Platte River.....	North Gate.....	1	1915 to 1934
North Platte River.....	Pinkhampton.....	1	1904
Nunn Creek.....	Mouth.....	1	1912, 1913
North Fk. St. Vrain Cr....	Billings Ranch.....	1	1915 to 1917
Parachute Creek.....	Grand Valley.....	4	1921 to 1927
*Paria River.....	Lee's Ferry, Arizona.....	..	1924 to 1934
Piceance Creek.....	Mouth.....	6	1918
Piedra River.....	Arboles.....	7	1895 to 1899, 1910 to 1927
Pinos Creek.....	Del Norte.....	3	1919 to 1924
*Plateau Creek.....	Collbran.....	4	1921 to 1934
Plateau Creek.....	Molina.....	4	1912
Poncha Creek.....	Poncha.....	3	1911 to 1918
Poney Creek.....	Hartsel.....	1	1917
Purgatoire River.....	Alfalfa.....	2	1905 to 1907, 1924 to 1928
*Purgatoire River.....	Trinidad.....	2	1897 to 1899, 1905 to 1912, 1916 to 1934
Purgatoire River.....	Las Animas (Mouth).....	2	1889, 1922 to 1931
*Purgatoire River.....	Highland Dam (Carmen)...	2	1921, 1932 to 1934
*Purgatoire River.....	Nine Mile Dam.....	2	1925 to 1934
Purgatoire River (North Fork).....	Trinidad Water Works.....	2	1923
Purgatoire River (Middle Fork).....	Vigil.....	2	1923
Purgatoire River (South Fork).....	Weston.....	2	1923
Quartz Creek.....	Pitkin.....	5	1911 to 1913
Ranch Creek (South).....	Arrow (Lower Station).....	5	1907 to 1909
Ranch Creek (South).....	Arrow (Upper Station).....	5	1908 to 1919
Ranch Creek (Middle).....	Arrow (Lower Station).....	5	1907 to 1909
*Ranch Creek.....	Near Fraser.....	5	1934

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
Ranch Creek.....	Mouth	1	1912, 1913
Ranch Creek (Middle).....	Arrow (Upper Station).....	5	1908 to 1909
*Ranch Creek.....	Near Tabernash.....	5	1934
Ranch Creek (North).....	Rollins Pass (Upper Station).....	5	1908 to 1909
*Rio Grande.....	Alamosa	3	1912 to 1934
*Rio Grande.....	Creede (30 mi. Br.).....	3	1909 to 1923, 1925 to 1934
*Rio Grande.....	Del Norte.....	3	1889 to 1934
*Rio Grande.....	Lobatos	3	1899 to 1934
*Rio Grande.....	Monte Vista.....	3	1926 to 1934
Rio Grande (S. Fk.).....	South Fork.....	3	1910 to 1922
*Rio Grande.....	Wason (Near Creede).....	3	1907 to 1934
Rio Grande Drainage District	Near Monte Vista (Main Outlet).....	3	1917 to 1920
Rio Grande Drainage District	Diversion to Prairie Ditch..	3	1918 to 1920
Rio Grande Drainage District	Below Prairie Ditch.....	3	1920
Roan Creek.....	De Beque.....	5	1921 to 1926
*Roaring Fork.....	Aspen.....	5	1911 to 1921, 1932 to 1934
Roaring Fork.....	Below Aspen.....	5	1913 to 1918
Roaring Fork.....	Emma	6	1908, 1909
Roaring Fork at N. Platte River.....	Hebron	1	1904 to 1905
*Roaring Fork River.....	Glenwood Springs.....	5	1906 to 1934
Roaring Fork of N. Platte.....	Walden	1	1924 to 1934
Rock Creek.....	Monte Vista.....	3	1919 to 1924
*Saguache Creek.....	Saguache	3	1910 to 1912, 1914 to 1934
Salt Creek.....	Hartsel	1	1917
St. Charles River.....	Burnt Mill Crossing.....	2	1923 to 1934
St. Charles River.....	Mouth	2	1922 to 1925
*St. Louis Creek.....	Near Fraser.....	5	1934
St. Louis Creek (Lower Station).....	Fraser	5	1908, 1909
St. Louis Creek (Upper Station).....	Fraser	5	1908, 1909
St. Vrain Creek (N. Fk.).....	Lyons	1	1892
St. Vrain Creek (N. Fk.).....	Billings Ranch.....	1	1915 to 1917
St. Vrain Creek (N. Fk.).....	Allens Park.....	1	1926 to 1930
*St. Vrain Creek (N. Fk.).....	Longmont Dam.....	1	1913 to 1917 (winter meas.) 1923, 1926 to 1934
*St. Vrain Creek.....	Lyons	1	1887 to 1891, 1896 to 1934
St. Vrain Creek (Middle Fork).....	Allens Park.....	1	1926 to 1930
St. Vrain Creek (S. Fk.).....	Lyons	1	1892
St. Vrain Creek (S. Fk.).....	Ward	1	1926, 1929 to 1931
*St. Vrain Creek.....	At Mouth.....	1	1915, 1927 to 1934
*San Antonio River.....	Near Ortiz.....	3	1915, 1919 to 1920, 1925 to 1934
*San Antonio River.....	Mouth (Manassa).....	3	1923 to 1934
San Francisco Creek.....	San Luis.....	3	1916
*Sangre de Cristo Creek....	Near Ft. Garland.....	3	1916, 1923 to 1930, 1932 to 1934
*Sangre de Cristo Creek....	Above Smith Reservoir.....	3	1929 to 1934
San Juan River.....	Arboles	7	1895 to 1899, 1910 to 1920
*San Juan River.....	Bluff, Utah.....	7	1915 to 1917, 1927 to 1934
*San Juan River.....	Rosa, N. M.....	7	1921 to 1934
*San Juan River.....	Shiprock, N. M.....	7	1930 to 1934
San Juan River.....	Pagosa Springs.....	7	1911 to 1914
San Luis Creek.....	Villa Grove.....	3	1910 to 1912, 1922 to 1926
San Miguel River.....	Fall Creek.....	4	1895 to 1899
San Miguel River.....	Placerville	4	1910 to 1912, 1930 to 1934
San Miguel River.....	Naturita	4	1918 to 1929
Sapinero Creek.....	Sapinero	4	1911 to 1914
Savery Creek.....	Savery, Wyoming.....	6	1915, 1916, 1918 to 1922
Scott Gomer Creek.....	Grant	1	1911 to 1913
*Slater Fork of Little Snake River.....	Slater	6	1910 to 1912, 1931 to 1934
Slater Fork of Little Snake River	Baxter's Ranch.....	6	1912 to 1920, 1922
Slater Cr. (Roaring Fk.)....	Baxter's Ranch.....	6	1922

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
*Snake River.....	Dillon	5	1910 to 1919, 1930 to 1934
Snowmass Creek.....	Snowmass	5	1911 to 1913
Soda Creek.....	Steamboat Springs.....	6	1910, 1911, 1913 to 1919
*South Boulder Creek.....	Eldorado Springs.....	1	1888, to 1892, 1896 to 1901, 1904 to 1934
South Crestone Creek.....	(Formerly called Marshall) Near Crestone.....	3	1915
South Boulder Creek.....	Rollinsville	1	1911 to 1918
South Fork Rio Grande.....	South Fork.....	3	1910 to 1922
South Platte (Mid. Fk.).....	Alma	1	1916
South Platte (Mid. Fk.).....	Fairplay	1	1916 to 1917
South Platte (Mid. Fk.).....	Mouth	1	1916
South Platte (N. Fk.).....	Cassells	1	1908 to 1913
South Platte (Mid. Fk.).....	Hartsel	1	1916
South Platte (S. Fk.).....	Twin Bridges.....	1	1917
South Platte (S. Fk.).....	Antero Reservoir Intake.....	1	1916, 1917
South Platte (S. Fk.).....	Above Four Mile.....	1	1916, 1917
South Platte (S. Fk.).....	Buckleys	1	1916
South Platte (S. Fk.).....	Antero Outlet.....	1	1916
South Platte (S. Fk.).....	Idlewild (Same as 11 Mile Canon).....	1	1916
South Platte (S. Fk.).....	Spinney	1	1916
*South Platte (S. Fk.).....	Cheesman Lake Outlet.....	1	1899 to 1910, 1925 to 1934
*South Platte (S. Fk.).....	Above Cheesman.....	1	1916, 1925 to 1934
South Platte River.....	Deansbury	1	1887 to 1891, 1895 to 1897
*South Platte River.....	Denver	1	1889, 1890, 1895 to 1934
South Platte (Mid. Fk.).....	Fairplay	1	1916, 1917
*South Platte River.....	Fort Lupton.....	1	1906, 1929 to 1934
South Platte (N. Fk.).....	Grant	1	1910 to 1917
South Platte.....	Intake	1	1926
*South Platte River.....	Julesburg	1	1902 to 1906, 1908 to 1921, 1925 to 1934
*South Platte River.....	Henderson	1	1926 to 1934
*South Platte River.....	Fort Lupton.....	1	1906, 1929 to 1934
South Platte River.....	Ovid	1	1922 to 1924
*South Platte River.....	Balzac	1	1917 to 1934
*South Platte River.....	Kersey	1	1901 to 1903, 1905 to 1912, 1914 to 1934
*South Platte (S. Fk.).....	(Lake George) Now 11 Mile Canon.....	1	1910 to 1934
South Platte.....	Orchard	1	1897 to 1900, 1903, 1905, 1906
South Platte.....	Platte Canon.....	1	1892, 1899, 1900
South Platte.....	Platteville	1	1904, 1905
*South Platte.....	Sublette	1	1926 to 1934
*South Platte.....	South Platte.....	1	1901 to 1934
*South Platte.....	Waterton	1	1926 to 1934
*South Platte (N. Fk.).....	South Platte.....	1	1909 to 1910, 1913 to 1934
South Platte (S. Fk.).....	South Platte.....	1	1905 to 1912
South Ranch (Lower Sta.).....	Arrow	5	1907 to 1909
South Ranch (Upper Sta.).....	Arrow	5	1908, 1909
Spanish Creek.....	Near Crestone.....	3	1915
Stub Creek.....	Mouth	1	1912, 1913
Stuck Creek.....	Mouth	1	1912, 1913
*Surface Creek.....	Cedaredge	4	1917 to 1934
Tarryall Creek.....	Jefferson	1	1912 to 1917
*Tarryall Creek.....	McLaughlin Ranch..... (Near Lake George)	1	1916 to 1934
Tarryall Creek.....	Hayman	1	1916
Taylor Park.....	Texas, Taylor and Willow..	4	1929 to 1934
Taylor River.....	Summerville Park.....	4	1905
*Taylor River.....	Almont	4	1910 to 1913, 1915 to 1934
Taylor River.....	Taylor Park.....	4	1929 to 1934
*Tenmile Creek.....	Dillon	5	1910 to 1919, 1930 to 1934
Tennessee Fork.....	Leadville	2	1890, 1913 to 1924
Texas Creek.....	Mouth (Tributary of Arkansas)	2	1923
Texas Creek.....	Taylor Park.....	4	1929 to 1934
Timpas Creek.....	Mouth	2	1922 to 1925
Timpas Creek.....	Catlin Syphon.....	2	1923 to 1927
Tomichi Creek.....	Sargents	4	1917 to 1922
*Trinchera Creek.....	Above Turner's Ranch.....	3	1923 to 1934
*Trinchera Creek.....	Above Mt. Home Reservoir.	3	1923 to 1934

*Stations Operating During Coming Year.

INDEX OF STREAM FLOW RECORDS IN THE OFFICE OF THE STATE ENGINEER OF COLORADO—Continued.

Stream	Location	Irrigation Division	Years of Record Inclusive
*Trinchera Creek.....	Below Smith Reservoir.....	3	1929 to 1934
Troublesome River.....	Troublesome	5	1904, 1905, 1922 to 1924
Trout Creek.....	Pinnacle	6	1910, 1911
Turkey Creek.....	Red Cliff.....	5	1913 to 1921
Twelve Mile Creek.....	Redfords Ranch.....	1	1917
*Uncompahgre River.....	Colona	4	1903 to 1934
Uncompahgre River.....	Delta	4	1903 to 1908, 1911 to 1913, 1915 to 1931
Uncompahgre River.....	Fort Crawford.....	4	1898, 1899, 1908, 1909, 1911
Uncompahgre River.....	Montrose	4	1903 to 1909, 1911 to 1925
Uncompahgre River.....	Ouray	4	1908, 1911 to 1918
Uncompahgre River and Power House Flume.....	Ouray.....	4	1916 to 1924
Uncompahgre River.....	Below Ouray.....	4	1913 to 1929
*Ute Creek.....	Near Fort Garland.....	3	1916, 1923 to 1934
*Vasquez Creek.....	Near Fraser.....	5	1934
Vasquez Creek.....	Fraser (Lower Sta.).....	5	1907 to 1909
Vasquez Creek.....	Fraser (Upper Sta.).....	5	1908, 1909
Vermillion Creek.....	Ladore	6	1910, 1911
Walton Creek.....	Steamboat Springs.....	6	1921, 1922
West Divide Creek.....	Raven (Beard's Ranch).....	5	1910 to 1911
West Divide Creek.....	Raven	5	1909, 1910
West Fork Clear Creek.....	Empire	1	1929 to 1931
West Mancos.....	Mancos	7	1910, 1911
Whiskey Creek.....	Trinidad Water Works.....	2	1923
White River (N. Fk.).....	Buford	6	1903 to 1906, 1910 to 1915, 1919 to 1920
White River (S. Fk.).....	Buford	6	1903 to 1906, 1910 to 1915, 1919 to 1920
*White River.....	Meeker	6	1901 to 1906, 1910 to 1934
White River.....	Rangely	6	1904, 1905, 1918
*White River.....	Watson, Utah.....	6	1906, 1923 to 1934
*Wild Horse Creek.....	Holly	2	1923 to 1934
*Williams Fork.....	Leal (Glen Mar).....	5	1933, 1934
Williams Fork.....	Scholl	5	1910 to 1917
*Williams Fork.....	Parshall (Mouth near Sulphur Springs).....	5	1904 to 1924, 1933 to 1934
*Williams Fork.....	Below Steelman Creek.....	5	1933 to 1934
Williams River.....	Hamilton	6	1904 to 1906, 1910 to 1927
Williams River.....	Pyramid	6	1910, 1911
Willow Creek.....	Ryans Ranch.....	6	1912 to 1923
*Willow Creek.....	Rand	1	1931 to 1934
Willow Creek.....	Above Crestone Branch D. & R. G. R. R.....	3	1915
Willow Creek.....	Taylor Park.....	4	1929 to 1934
*Yampa River.....	Maybell	6	1904, 1905, 1910 to 1912, 1916 to 1934
Yampa River.....	Craig	6	1901, 1902, 1904 to 1906, 1910 to 1916
*Yampa River.....	Steamboat Springs.....	6	1904 to 1906, 1910 to 1934
Yampa River.....	Yampa	6	1910 to 1915

*Stations Operating During Coming Year.

RELATED RUNOFF IN PERCENTAGE OF THE NORMAL FOR STREAMS IN COLORADO

Stream	Years of Record	Mean Ac. Ft.	1933 %	1934 %
Animas River at Durango.....	36	668,000	64	37
Arkansas River at Canon City.....	47	533,100	73	48
Bear Creek at Idledale.....	15	43,800	96	47
Big Thompson River near Drake.....	17	102,050	106	67
Blue River at Dillon.....	24	90,620	77	60
Boulder Creek near Orodell.....	28	69,900	72	62
Cache la Poudre River at Canon.....	51	312,450	89	43
Clear Creek near Golden.....	25	178,620	106	75
Colorado River at Glenwood Springs.....	35	2,216,300	87	46
†Colorado River at Lees Ferry, Arizona.....	39	14,743,000	66	..
Conejos River near Mogote.....	32	276,000	76	40
Dolores River at Dolores.....	25	323,500	66	32
Fraser River at West Portal.....	24	32,300	103	64
La Plata River at Hesperus.....	20	35,596	62	38
Laramie River near Jelm, Wyoming.....	26	129,670	89	31
Little Snake River at Lily Park.....	14	512,000	114	14
North Platte River near Northgate.....	19	386,900	66	23
Purgatoire River at Trinidad.....	27	69,430	65	37
Rio Grande River near Del Norte.....	45	707,500	70	48
Roaring Fork River at Glenwood Springs.....	28	1,134,200	83	44
Saguache Creek near Saguache.....	24	60,150	62	42
South Boulder Creek at Eldorado Springs.....	42	55,900	103	54
*South Platte River at South Platte.....	43	273,430	106	50
St. Vrain Creek at Lyons.....	45	99,748	99	58
White River near Meeker.....	31	476,700	102	51
White River near Watson, Utah.....	13	593,400	90	47
Yampa River at Steamboat Springs.....	29	364,020	94	35
Yampa River near Maybell.....	24	1,258,000	84	30

†Does not include year 1934.

*Corrected for storage.

NOTE—The mean in acre feet is based on all available years of record as shown in first column, including the year 1934.

PLATTE DRAINAGE

Cooperation: All stations maintained in cooperation with the United States Geological Survey.

‡In Cooperation with City of Denver.

*In Cooperation with State of Nebraska.

¶In Cooperation with Public Service Co.

‡In Cooperation with City of Loveland.

†SOUTH FORK OF SOUTH PLATTE RIVER AT ELEVEN MILE CANON NEAR LAKE GEORGE

Location—In NW $\frac{1}{4}$ Sec. 21, T. 13 S., R. 72 W., in Eleven Mile Canon, eight miles west of Lake George and approximately one mile below Eleven Mile Canon Reservoir.

Records Available—Oct. 1, 1929, to Sept. 30, 1934. On station at Lake George eight miles below from October 22, 1910, to September 30, 1929.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1930-34): 990 second-feet Aug. 15, 1930 (gage height, 4.8 feet).

†SOUTH FORK SOUTH PLATTE RIVER ABOVE LAKE CHEESMAN

Location—In Sec. 22, T. 10 S., R. 71 W. One-half mile above high water line of Lake Cheesman. Sharp crested weir.

Records Available—October 1, 1924, to September 30, 1934. Acre-feet estimates 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1924-34): 1,010 second-feet Aug. 15, 1930 (gage height, 4.40 feet).

†SOUTH FORK SOUTH PLATTE RIVER BELOW LAKE CHEESMAN

Location—In Sec. 6, T. 10 S., R. 70 W. One-quarter mile below dam.

Records Available—October 1, 1924, to September 30, 1934. Acre-foot estimates 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1924-34): 1,590 second-feet Aug. 9, 1926 (gage height, 6.16 feet).

†NORTH FORK OF SOUTH PLATTE RIVER AT SOUTH PLATTE

Location—In Sec. 25, T. 7 S., R. 70 W., one-third mile above South Platte.

Records Available—January 4, 1909, to September 30, 1910; April 1, 1913, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1909-34): June 8, 1921, 1,910 second-feet June 8, 1921 (gage height, 5.9 feet).

†SOUTH PLATTE RIVER AT SOUTH PLATTE

Location—In Sec. 25, T. 7 S., R. 70 W., three-fourths of a mile east of South Platte and about 375 feet below junction of North and South Forks.

Records Available—March 28, 1902, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1902-34): 6,320 second-feet June 7, 1921 (gage height, 8.95 feet).

SOUTH PLATTE RIVER AT WATERTON

Location—In Sec. 34, T. 6 S., R. 69 W., 200 feet east of highway bridge at pipe line crossing from Platte Canon Reservoir to filter beds and one-half mile south of Waterton.

Records Available—May 1, 1926, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1926-34): 2,150 second-feet June 9, 1926 (gage height, 2.78 feet).

SOUTH PLATTE RIVER AT DENVER

Location—At 19th Street Bridge in Denver and one-half mile below mouth of Cherry Creek. Waste water from Farmers and Gardners Ditch enters river above station.

Records Available—August 29, 1931, to September 30, 1934. From May 7, 1895, to August 29, 1931, station was maintained between 15th and 16th Street Bridges in Denver.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1902-34): 22,000 second-feet Sept. 10, 1933 (gage height, 10.98 feet).

SOUTH PLATTE RIVER AT HENDERSON

Location—In Sec. 34, T. 1 S., R. 67 W., 6th P. M. just below highway bridge and one-fourth mile west of Henderson.

Records Available—May 1, 1926, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1926-34): 5,600 second-feet Sept. 10, 1933 (gage height, 7.15 feet).

SOUTH PLATTE RIVER AT FT. LUPTON

Location—300 feet below highway bridge at west edge of Ft. Lupton in Sec. 6, T. 1 N., R. 66 W.

Records Available—May 10 to Sept. 15, 1906; April 29, 1929, to Sept. 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1906, 1929-34): 4,150 second-feet Sept. 11, 1933 (gage height, 5.80 feet).

SOUTH PLATTE RIVER NEAR KERSEY

Location—In Sec. 9, T. 5 N., R. 64 W., fifty feet below highway bridge, and one and three-quarters miles north of Kersey.

Records Available—April 27, 1901, to October 31, 1903; March 1, 1905, to November 30, 1912; January 1, 1914, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1901-3, 1905-34): 31,000 second-feet June 7, 1921.

SOUTH PLATTE RIVER AT SUBLETTE

Location—In Sec. 14, T. 4 N., R. 61 W., at highway bridge 1,000 feet south of Sublette.

Records Available—April 19, 1926, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1926-34): 8,090 second-feet April 23, 1926 (gage height, 5.80 feet).

SOUTH PLATTE RIVER AT BALZAC

Location—In Sec. 13, T. 5 N., R. 55 W., one-half mile below highway and three-quarters mile east of Balzac.

Records Available—January, 1917, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1917-34): 31,200 second-feet June 11, 1921.

*SOUTH PLATTE RIVER AT JULESBURG

Location—In Sec. 33, T. 12 N., R. 44 W., at highway bridge one-half mile east of Julesburg, Colorado, and four miles above state line.

Records Available—April 2, 1902, to November 16, 1906; May 12, 1908, to November 30, 1912; April 8, 1914, to September 30, 1934.

Gage—Three automatic recording gages.

Accuracy—Records considered good.

Maximum Discharge (1902-34): 30,800 second-feet June 16, 1921.

TARRYALL CREEK NEAR LAKE GEORGE

Location—In Sec. 22, T. 11 S., R. 72 W., at McLaughlin's ranch, eight miles northwest of Lake George.

Records Available—June 19 to October 26, 1916; April 1, 1925, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1910-12, 1916, 1925-34): 795 second-feet July 29, 1929 (gage height, 4.52 feet).

†GOOSE CREEK AT LAKE CHEESMAN

Location—In Sec. 3, T. 10 S., R. 71 W., about one mile above high water line of Lake Cheesman. Sharp crested weir.

Records Available—October 1, 1924, to September 30, 1934
Acre-foot estimates, 1909 to date.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1924-34): 315 second-feet May 26, 1926 (gage height, 3.75 feet).

BEAR CREEK AT IDLEDALE

Location—In Sec. 32, T. 4 S., R. 70 W., at bridge at Idledale postoffice.

Records Available—October 1, 1919, to September 30, 1934.
Station moved to Morrison in September, 1934. Records comparable.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge during year: 4,620 second feet (slope measurement) Aug. 9, 1933 (gage height, 7.09 feet).

BEAR CREEK AT MOUTH AT SHERIDAN JUNCTION

Location—In Sec. 5, T. 5 S., R. 68 W., one-half mile southwest of Sheridan Junction and three-fourths mile above mouth.

Records Available—April 1 to November 30, 1914; February 23, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1914, 1927-34): 3.000 second-feet (slope measurement) July 7, 1933 (gage height, 6.95 feet).

CLEAR CREEK NEAR GOLDEN

Location—In Sec. 32, T. 3 S., R. 70 W., one and one-half miles above Golden.

Records Available—December 4, 1908, to December 31, 1909; June 8 to September 24, 1911; January 26, 1912, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1908-9, 1911-34): 5,890 second feet (slope measurement) Sept. 9, 1933 (gage height, 9.71 feet).

CLEAR CREEK NEAR MOUTH

Location—In Sec. 36, T. 2 S., R. 68 W., where East Lake Highway crosses Clear Creek.

Records Available—April 1, 1914, to November 30, 1914; February 25, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1914, 1927-34): 1,260 second-feet June 2, 1914 (gage height, 4.5 feet).

FALL RIVER NEAR IDAHO SPRINGS

Location—At mouth at highway bridge one and one-half miles west of Idaho Springs in Sec. 28, T. 3 S., R. 73 W.

Records Available—April 1, 1930, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1930-34): 188 second-feet June 1, 1933 (gage height, 1.82 feet).

SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS

Location—In Sec. 26, T. 1 S., R. 71 W., one mile above Community dam. Station moved to present location May, 1934.

Records Available—May 15, 1895, to September 30, 1901; July 1, 1904, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1895-1901, 1909-34): 804 second-feet May 23, 1926 (gage height, 2.74 feet, former datum).

¶BOULDER CREEK NEAR ORODELL

Location—One mile above Orodell in Sec. 34, T. 1 N., R. 71 W., and one-fourth mile below power plant. Four Mile Creek enters one mile below.

Records Available—May 12, 1917, to September 30, 1934. From May 14, 1895, to December 20, 1909, station was located four miles below present station. From March 8, 1907, to November 26, 1914, and February 27 to December 12, 1916, station was located one mile below present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1887-88, 1907-14, 1916-34): 2,500 second-feet June 6, 1921 (gage height, 4.31 feet).

BOULDER CREEK AT MOUTH NEAR LONGMONT

Location—On Section line between Secs. 16 and 17, T. 2 N., R. 68 W., about one-fourth mile below highway bridge and four and one-half miles southeast of Longmont and one and one-half miles above mouth.

Records Available—March 16, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1927-34): 723 second-feet June 4, 1928 (gage height, 3.84 feet).

¶MIDDLE BOULDER CREEK AT NEDERLAND

Location—In Sec. 13, T. 1 S., R. 73 W., at inlet of Barker Meadow Reservoir. This record includes North Beaver Creek.

Records Available—January, 1908, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

(Records furnished by Public Service Co.)

ST. VRAIN CREEK AT LYONS

Location—Three-fourths mile east of Lyons in Sec. 17, T. 3 N., R. 70 W., and about 300 feet below the junction of the North and South Forks.

Records Available—August 1, 1887, to October 31, 1890; June 13, 1895, to October 31, 1903; July 1, 1904, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1887-90, 1895-1903, 1904-34): 2,050 second-feet June 7, 1921 (gage height, 5.55 feet).

NORTH FORK OF ST. VRAIN CREEK AT LONGMONT DAM
NEAR LYONS

Location—In Sec. 16, T. 3 N., R. 71 W., three-fourths mile above concrete dam of City of Longmont and four miles west of Lyons. City diverts water below station.

Records Available—1913 to 1917 (partial records); June 1, 1926, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1926-34): 783 second-feet May 30, 1928 (gage height, 2.93 feet).

ST. VRAIN CREEK AT MOUTH NEAR PLATTEVILLE

Location—In Sec. 4, T. 3 N., R. 67 W., four miles northwest of Platteville and one mile above mouth.

Records Available—April 1 to December 31, 1915; February 24, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1915, 1927-34): 4,300 second-feet (estimated) June 14, 1934 (gage height, 5.10 feet).

LEFT HAND CREEK NEAR MOUTH NEAR LONGMONT

Location—In Sec. 10, T. 2 N., R. 69 W., one mile south of Longmont and three-fourths mile above mouth.

Records Available—March 1, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1927-34): 252 second-feet May 10, 1928 (gage height, 2.20 feet).

BIG THOMPSON RIVER NEAR ESTES PARK

Location—In Sec. 29, T. 5 N., R. 72 W., one and one-half miles east of Estes Park.

Records Available—June 24 to Sept. 30, 1934. Prior to February, 1934, station one and one-half miles downstream. Records are comparable.

Gage—Automatic recording gage since February, 1934.

Accuracy—Records considered good.

Maximum Discharge (1930-34): 1,390 second-feet July 18, 1930 (gage height, 3.00 feet).

‡BIG THOMPSON RIVER BELOW LOVELAND POWER PLANT NEAR DRAKE

Location—In Sec. 7, T. 5 N., R. 70 W., one-fourth mile below City of Loveland Power Plant and four and one-half miles east of Drake. Cedar Creek enters one-eighth mile downstream.

Records Available—October 1, 1929, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1929-34): 1,010 second-feet June 14, 1933 (gage height, 4.08 feet).

Maximum known, 8,000 second feet (estimated) July 31, 1919.

BIG THOMPSON RIVER AT CANON MOUTH

Location—In Sec. 4, T. 5 N., R. 70 W., at highway bridge one mile above Handy Dam. This station is four miles east of location used prior to 1927.

Records Available—September 18, 1917, to September 30, 1933.

Gage—Automatic recording gage.

Accuracy—Records considered good.

BIG THOMPSON RIVER AT MOUTH NEAR LA SALLE

Location—On Section line between Secs. 33 and 34, T. 5 N., R. 66 W., at the first bridge on Big Thompson River, one mile above mouth and four miles west of La Salle.

Records Available—April 1 to November 30, 1914; March 1, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1914, 1927-34): 1,300 second-feet July 29, 1932 (gage height, 5.22 feet).

CACHE LA POUDE RIVER AT MOUTH OF CANON NEAR
FORT COLLINS

Location—In Sec. 15, T. 8 N., R. 70 W., three miles below the intake of Fort Collins Water Works and eleven miles west of Fort Collins.

Records Available—May 15, 1884, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1884-1934): 8,000 second-feet June 9, 1923 (gage height, 7.10 feet).

CACHE LA POUDE RIVER NEAR MOUTH

Location—In Sec. 2, T. 5 N., R. 65 W., two miles east of Greeley just below highway bridge and two and one-half miles above mouth.

Records Available—March 24, 1903, to November 30, 1904; February 1, 1914, to December 17, 1919, and May 27, 1924, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1903-4, 1914-19, 1924-34): 4,240 second-feet June 24, 26, 1917 (gage height, 7.3 feet).

BIG GRIZZLY CREEK NEAR WALDEN

Location—In Sec. 29, T. 8 N., R. 80 W., ten miles south of Walden and one-half miles above Junction Little Grizzly.

Records Available—May 13, 1904, to October 1, 1905; May 1 to September 30, 1923; October 1, 1926, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1904-5, 1923, 1926-34): 1,340 second-feet June 10, 1923 (gage height, 4.8 feet).

ILLINOIS CREEK NEAR RAND

Location—In NE $\frac{1}{4}$ Sec. 30, T. 6 N., R. 78 W., at highway bridge one mile north of Rand on the road to Owl and two and one-half miles above mouth of Willow Creek.

Records Available—July 11, 1931, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ILLINOIS CREEK NEAR WALDEN

Location—In Sec. 29, T. 9 N., R. 79 W., on highway bridge one-half mile southwest of Walden.

Records Available—May 1, 1917, to August 31, 1918, and May 1, 1923, to September 30, 1934.

Gage—Staff gage.

Accuracy—Records considered fair.

Maximum Discharge (1917-18, 1923-34): 2,520 second-feet May 28, 1926 (gage height, 6.4 feet).

LITTLE GRIZZLY CREEK AT MOUTH NEAR HEBRON

Location—In Sec. 32, T. 8 N., R. 80 W., on Peterson Ranch bridge about one mile upstream from junction with Big Grizzly Creek and three miles north of Hebron.

Records Available—June 26, 1931, to September 30, 1934.

Gage—Staff gage.

Accuracy—Records considered fair.

MICHIGAN RIVER NEAR LINDLAND

Location—In S. E. $\frac{1}{4}$, Sec. 21, T. 7 N., R. 77 W., approximately two miles southeast of Lindland Post Office on the Cameron Pass Highway at the crossing of Michigan Creek and one mile above the junction of the North Fork.

Records Available—July 12, 1931, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

MICHIGAN RIVER NEAR WALDEN

Location—In Sec. 21, T. 9 N., R. 79 W., on highway bridge half mile north of Walden.

Records Available—May 8, 1904, to October 31, 1905; June 1, 1918, to July 26, 1918, and May 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1904-5, 1923-34): 1,070 second feet June 10, 1923 (gage height, 3.3 feet).

NORTH PLATTE RIVER NEAR WALDEN

Location—In Sec. 6, T. 8 N., R. 80 W., on highway bridge 8 miles southwest of Walden. Roaring Fork enters above station.

Records Available—May 13, 1904, to October 31, 1905, and October 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1904-5, 1923-34): 1,770 second-feet June 1, 1928 (gage height, 5.33 feet).

NORTH PLATTE RIVER NEAR NORTH GATE

Location—In Sec. 11, T. 11 N., R. 80 W., at highway bridge 6 miles south of Colorado-Wyoming line and 6 miles northwest of North Gate.

Records Available—May 23, 1915, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1915-34): 6,720 second-feet June 11, 1923 (gage height, 6.24 feet).

ROARING FORK NEAR WALDEN

Location—In Sec. 11, T. 8 N., R. 81 W., on highway bridge 10 miles southwest of Walden.

Records Available—July 20, 1904, to October 31, 1905, and October 27, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1904-5, 1923-34): 790 second-feet June 15, 1924 (gage height, 3.74 feet).

WILLOW CREEK NEAR RAND

Location—In Sec. 23, T. 6 N., R. 79 W., on main highway bridge 2.6 miles northwest of Rand.

Records Available—July 10, 1931, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

LARAMIE RIVER NEAR GLENDEVEY

Location—In Sec. 25, T. 10 N., R. 76 W., 1½ miles north of Glendevy Postoffice and at Sholine's Ranch.

Records Available—June 24, 1904, to October 31, 1905, and August 18, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1904-5, 1910-34): 2,240 second-feet June 9, 1923.

LARAMIE RIVER NEAR JELM, WYOMING

Location—At highway bridge in Sec. 15, T. 12 N., R. 77 W., one-fourth mile north of the Colorado-Wyoming line.

Records Available—May 7, 1911, to September 30, 1934. From June 22, 1904, to October 31, 1905, a station was maintained three-fourths of a mile south of this station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1904-5, 1911-34): 4,200 second-feet June 9, 1923 (gage height, 4.15 feet).

Discharge of South Fork of South Platte River at Eleven Mile Canon near Lake George for year ending Sept. 30, 1933. Drainage area 929 Square Miles. Altitude, 8,423.95 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	43	11	7	....	....	....	....	14	8	103	57	34
2....	43	12	4	....	....	....	....	14	45	103	82	35
3....	34	12	4	....	....	....	....	14	241	62	84	35
4....	33	12	4	....	....	....	....	14	134	45	117	35
5....	33	12	4	....	....	....	....	14	50	191	209	34
6....	38	12	4	....	....	....	....	7	136	254	165	31
7....	42	12	4	....	....	....	....	7	186	269	122	32
8....	35	18	4	....	....	....	....	7	183	313	74	29
9....	35	7	4	....	....	....	....	7	52	350	74	30
10....	35	4	4	....	....	....	....	7	28	170	87	30
11....	39	5	4	....	....	....	....	3	50	23	108	112
12....	45	4	4	....	....	....	....	3	106	14	108	254
13....	28	4	4	....	....	....	....	3	324	49	106	191
14....	26	4	4	....	....	....	....	3	303	55	66	160
15....	25	4	4	....	....	....	....	3	300	14	33	181
16....	24	4	3	....	....	....	....	4	241	21	19	97
17....	24	4	3	....	....	....	....	11	261	72	26	65
18....	25	4	3	....	....	....	....	11	248	170	29	73
19....	27	4	3	....	....	....	....	11	115	173	28	73
20....	27	5	3	....	....	....	....	10	235	92	43	41
21....	30	4	3	....	....	....	....	8	280	69	66	40
22....	34	4	3	....	....	....	....	9	347	191	78	73
23....	34	6	3	....	....	....	....	9	212	241	81	84
24....	35	6	3	....	....	....	....	6	225	108	81	61
25....	37	6	3	....	....	....	....	6	156	63	50	39
26....	31	6	3	....	....	....	....	6	103	63	35	30
27....	11	5	3	....	....	....	....	6	103	63	35	31
28....	11	5	3	....	....	....	....	6	103	69	35	31
29....	11	7	3	....	....	....	....	7	73	76	35	33
30....	12	9	3	....	....	....	....	8	78	76	35	33
31....	12	....	3	....	....	....	....	8	....	64	34	....
Total	919	212	111	46	28	93	918	246	4926	3626	2205	2027
Mean.	29.6	7.1	3.6	1.5	1.0	3.0	30.6	7.9	164	117	71.1	67.6
Max.	45	18	7	....	....	....	....	....	347	350	209	254
Min.	11	4	....	....	....	....	....	....	8	14	19	29
Acre-ft.	1820	422	221	92	56	184	1820	486	9760	7190	4370	4020

Discharge of South Fork South Platte River at Eleven Mile Canon near Lake George for year ending Sept. 30, 1934. Drainage area 929 Square Miles. Altitude, 8,423.95 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	23	19	27	....	....	....	13	4	186	42	66	48
2....	22	18	29	....	....	....	26	4	195	42	21	48
3....	18	16	26	....	....	....	26	3	87	44	15	45
4....	18	13	21	....	....	....	13	6	58	44	15	33
5....	18	7	17	....	....	....	13	11	89	44	27	26
6....	18	18	16	....	1.07	....	13	22	94	44	33	21
7....	19	20	10	....	....	....	13	49	85	44	36	24
8....	19	18	10	....	....	....	13	60	60	44	38	26
9....	21	17	10	....	....	....	10	38	13	44	38	39
10....	26	14	4	....	....	....	5	26	29	43	48	49
11....	30	23	4	....	....	....	3	24	32	43	64	58
12....	30	30	4	....	....	....	3	24	32	43	89	48
13....	32	31	4	....	....	....	3	33	31	42	120	36
14....	27	43	4	....	....	....	3	101	31	42	138	36
15....	22	38	4	....	....	....	3	140	33	40	109	36
16....	9	33	4	....	....	....	2	163	45	33	53	35
17....	5	26	4	....	....	....	2	113	61	24	182	25
18....	5	19	4	....	....	....	2	64	72	15	152	15
19....	5	22	4	....	....	....	10	39	80	21	87	14
20....	6	12	4	....	....	....	13	19	80	22	105	14
21....	3	15	4	....	....	....	12	26	62	22	105	14
22....	3	16	4	....	....	....	12	100	31	22	105	14
23....	3	14	4	....	....	....	12	204	23	22	103	14
24....	7	13	4	....	....	....	12	228	24	22	72	12
25....	10	13	4	....	....	....	9	138	30	26	42	21
26....	8	14	4	....	....	....	8	138	45	70	25	21
27....	10	21	4	....	....	....	8	146	47	124	36	17
28....	15	25	4	....	....	....	5	240	45	146	77	12
29....	18	26	4	....	....	....	4	178	44	148	54	14
30....	18	24	4	....	....	....	4	163	43	140	40	15
31....	18	....	4	....	....	....	....	167	....	96	43	....
Total	491	613	254	....	....	....	275	2671	1787	1598	2138	820
Mean.	15.8	20.6	8.2	4.0	1.4	16.3	9.2	86.2	59.6	51.5	69.0	27.7
Max.	32	43	29	....	....	....	....	240	195	148	182	58
Min.	3	7	4	....	....	....	....	3	13	15	15	12
Acre-ft.	972	1230	504	246	78	1000	547	5300	3550	3170	4240	1650

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Fork South Platte River Above Lake Cheesman for Year Ending Sept. 30, 1933. Drainage Area, 1,680 Square Miles. Altitude, 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	57	20	....	....	....	....	....	207	198	152	144	56
2....	52	18	....	....	....	....	....	274	227	150	115	56
3....	51	17	....	....	....	....	....	331	285	147	152	51
4....	53	23	....	....	....	....	....	347	376	109	220	38
5....	49	42	....	....	....	....	....	343	207	163	210	33
6....	51	....	....	....	....	....	....	300	234	327	252	30
7....	56	....	....	....	....	....	....	289	278	347	244	30
8....	59	....	....	....	....	....	100	289	312	414	177	30
9....	54	....	....	....	....	....	....	224	304	440	234	34
10....	45	....	....	....	....	....	....	188	155	359	201	220
11....	44	....	....	....	....	....	....	198	168	158	179	278
12....	63	....	....	....	....	....	....	198	238	118	160	335
13....	42	....	....	....	....	....	....	198	355	80	152	327
14....	36	....	....	....	....	....	....	194	427	133	150	238
15....	34	....	....	....	....	....	53	185	423	80	87	216
16....	33	....	....	....	....	....	53	188	427	57	65	213
17....	34	....	....	....	....	....	49	198	401	114	57	131
18....	32	....	....	....	....	....	53	213	423	185	60	142
19....	31	....	....	....	....	....	56	216	312	188	61	123
20....	36	....	....	....	....	....	45	230	436	185	57	106
21....	34	....	....	....	....	....	34	238	409	111	77	54
22....	38	....	....	....	....	....	55	241	462	166	106	62
23....	36	....	....	....	....	....	....	220	384	252	109	106
24....	35	....	....	....	....	....	....	213	323	227	109	96
25....	33	....	....	....	....	....	....	204	363	69	106	62
26....	32	....	....	....	....	....	....	198	296	58	62	38
27....	30	....	....	....	....	....	....	185	216	69	67	27
28....	29	....	....	....	....	....	....	179	204	93	83	25
29....	28	....	....	....	....	....	....	177	168	104	63	24
30....	28	....	....	....	....	....	252	174	128	102	59	30
31....	25	....	....	....	....	....	....	177	....	150	57	....
Total	1260	....	....	....	....	....	....	7016	9139	5307	3938	3211
Mean.	40.6	....	....	....	....	....	....	226	305	171	127	107
Max..	63	....	....	....	....	....	....	347	462	440	270	335
Min..	25	....	....	....	....	....	....	174	128	57	57	24
Ac.-ft.	2500	....	....	....	....	....	....	13900	18100	10500	7810	6370

Discharge of South Fork of South Platte River Above Lake Cheesman for Year Ending Sept. 30, 1934. Drainage Area 1,680 Square Miles. Altitude 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	32	....	....	....	....	....	26	257	56	128	64
2....	31	32	....	....	....	....	....	26	254	51	61	64
3....	30	32	....	....	....	....	....	30	200	49	39	62
4....	34	28	....	....	....	....	....	36	108	47	38	56
5....	34	19	....	....	....	....	....	38	122	46	32	45
6....	40	26	....	....	....	....	....	63	130	42	44	42
7....	40	26	....	....	....	....	....	84	128	40	56	36
8....	36	28	....	....	....	....	....	102	118	40	54	38
9....	34	28	....	....	....	....	....	98	83	40	54	40
10....	37	31	....	....	....	....	....	58	57	40	56	50
11....	36	....	....	....	....	....	....	46	65	40	89	61
12....	40	....	....	....	....	....	80	45	61	40	130	64
13....	42	....	....	....	....	....	58	47	53	40	120	54
14....	49	....	....	....	....	....	59	70	52	40	138	46
15....	42	....	....	....	....	....	52	133	53	42	135	44
16....	40	....	....	....	....	....	48	163	52	40	152	44
17....	40	....	....	....	....	....	41	141	69	34	191	42
18....	34	....	....	....	....	....	36	104	83	30	179	35
19....	25	....	....	....	....	....	31	92	95	30	116	25
20....	28	....	....	....	....	....	36	52	96	30	116	25
21....	22	....	....	....	....	....	36	40	96	28	124	28
22....	26	....	....	....	....	....	36	56	68	28	133	24
23....	22	....	....	....	....	....	37	163	43	30	133	23
24....	21	....	....	....	....	....	42	274	38	30	128	28
25....	20	....	....	....	....	....	40	226	40	54	92	26
26....	20	....	....	....	....	....	38	203	43	106	61	29
27....	24	....	....	....	....	....	34	197	48	124	49	33
28....	25	....	....	....	....	....	31	200	52	146	76	33
29....	28	....	....	....	....	....	30	246	52	135	165	28
30....	31	....	....	....	....	....	26	191	55	133	73	27
31....	31	....	....	....	....	....	....	236	....	133	59	....
Total	994	....	....	....	....	....	....	3486	2671	1764	3021	1216
Mean.	32.1	25	9	5	8	16	40	112	89.0	56.9	97.5	40.5
Max..	49	....	....	....	....	....	....	274	257	146	191	64
Min..	20	....	....	....	....	....	....	26	38	28	32	23
Acre-ft.	1970	1490	553	307	444	984	2380	6890	5300	3500	6000	2410

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River Below Lake Cheesman for Year Ending Sept. 30, 1933.
Drainage Area, 1,766 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	135	149	49	....	....	....	68	22	19	164	270	162
2....	135	170	49	....	....	....	69	21	19	168	252	164
3....	146	153	49	....	....	....	64	20	26	232	128	186
4....	146	153	49	....	....	....	61	20	184	232	30	218
5....	147	176	44	....	....	....	58	20	310	211	176	328
6....	266	155	41	....	....	....	70	20	417	273	326	268
7....	137	144	36	....	....	....	137	20	500	524	297	275
8....	138	142	32	....	....	....	153	20	524	561	247	273
9....	138	142	32	....	....	23	144	20	539	590	245	227
10....	147	140	....	....	....	....	81	20	452	606	355	28
11....	188	126	....	....	....	....	69	19	282	292	334	28
12....	168	102	....	....	....	....	87	18	275	132	266	28
13....	155	97	....	....	....	....	87	18	406	192	266	28
14....	142	95	....	....	19	....	86	18	726	209	285	28
15....	119	98	....	....	....	23	87	18	726	275	334	28
16....	116	121	....	33	....	23	87	18	673	128	290	28
17....	116	119	....	....	....	24	88	18	596	126	273	26
18....	119	119	....	....	....	24	87	18	553	162	300	26
19....	119	114	....	....	....	26	105	18	561	297	347	26
20....	114	114	....	....	....	32	62	18	512	280	180	26
21....	103	129	....	....	....	32	29	19	609	280	192	26
22....	118	131	....	....	....	32	24	18	632	155	220	26
23....	124	114	....	....	....	32	22	19	710	247	236	26
24....	168	114	....	....	....	32	19	19	533	392	236	26
25....	204	113	....	....	....	32	19	19	417	278	234	26
26....	168	113	....	....	....	32	19	18	443	108	213	26
27....	238	111	....	....	....	32	20	18	383	95	192	26
28....	213	111	....	....	....	32	21	19	326	113	238	26
29....	194	81	....	....	....	37	22	19	263	137	243	36
30....	209	42	....	....	....	56	22	19	200	144	194	49
31....	184	....	....	....	....	69	....	19	....	231	194	....
Total	4814	3688	....	....	....	....	1967	590	12821	7994	7593	2694
Mean.	155	123	34	33	19	28.8	65.6	19.0	427	258	245	89.8
Max..	266	176	....	....	....	....	153	22	726	606	355	328
Min...	103	42	....	....	....	....	19	18	19	95	30	26
Acre-ft.	9530	7320	2090	2030	1060	1770	3900	1170	25400	15900	15100	5340

Discharge of South Platte River Below Lake Cheesman for Year Ending Sept. 30, 1934.
Drainage Area 1,766 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	49	46	44	20	21	21	21	76	479	400	263	131
2....	50	53	44	21	21	21	21	61	434	282	247	151
3....	50	63	55	21	21	21	39	53	389	194	158	158
4....	51	66	66	21	21	21	23	53	200	186	146	176
5....	50	52	66	21	21	21	22	74	137	164	170	170
6....	44	34	42	21	21	21	22	182	190	166	188	144
7....	26	32	20	21	21	21	23	147	234	164	194	142
8....	26	32	20	21	21	21	22	150	229	164	245	140
9....	24	36	20	21	21	22	22	182	204	180	102	149
10....	20	36	20	21	21	22	22	142	174	198	128	153
11....	20	39	20	21	21	22	21	87	124	196	213	147
12....	20	54	20	21	21	22	21	66	122	182	243	164
13....	20	61	20	21	21	21	31	86	146	172	287	176
14....	20	60	20	21	21	23	40	144	158	170	295	155
15....	19	64	20	21	21	31	22	202	113	170	326	158
16....	19	86	20	21	21	52	21	238	61	194	334	194
17....	24	90	20	21	21	67	21	222	78	218	336	194
18....	45	73	20	21	21	67	44	202	131	218	263	194
19....	45	47	20	21	21	113	67	137	129	211	263	176
20....	43	48	20	21	21	58	61	105	124	192	209	146
21....	38	49	20	21	21	21	75	88	106	192	176	144
22....	33	38	20	21	21	21	92	86	144	190	176	155
23....	33	29	20	21	21	21	116	156	114	196	190	151
24....	33	33	20	21	21	21	116	344	158	194	213	155
25....	33	38	20	21	21	21	116	403	344	200	178	184
26....	32	38	20	21	21	21	114	280	344	275	128	176
27....	32	38	20	21	21	21	103	326	321	323	118	151
28....	32	38	20	21	21	21	79	482	321	308	128	140
29....	32	42	20	21	....	21	76	482	310	308	263	119
30....	37	44	20	21	....	21	76	497	321	280	250	118
31....	39	....	20	21	....	21	....	408	....	252	140	....
Total	1039	1459	817	650	588	919	1549	6167	6339	6739	6570	4711
Mean.	33.5	48.6	26.4	21.0	21.0	29.6	51.6	199	211	217	212	157
Max..	51	90	66	....	21	113	116	497	479	400	336	194
Min...	19	29	20	....	21	21	21	53	61	164	102	118
Acre-ft.	2060	2890	1620	1290	1170	1820	3070	12200	12600	13300	13000	9340

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Fork of South Platte River at South Platte for the Year Ending Sept. 30, 1933. Drainage Area, 484 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	75	54	....	....	....	....	30	371	1100	300	175	79
2....	72	60	....	....	....	....	32	477	1130	270	224	76
3....	68	64	....	....	....	....	37	480	848	220	264	73
4....	76	60	....	....	....	....	45	452	840	190	230	71
5....	78	52	....	....	....	....	39	434	930	170	180	69
6....	65	59	....	21	....	....	36	506	892	199	178	70
7....	57	56	....	....	....	....	46	509	856	376	183	68
8....	49	42	4	....	....	....	48	525	676	433	196	67
9....	62	42	....	....	....	39	49	506	660	354	160	99
10....	68	35	....	....	....	....	46	467	744	347	148	412
11....	70	27	....	....	....	....	32	461	768	320	138	347
12....	68	29	....	....	....	....	35	425	720	327	126	289
13....	64	40	....	....	....	....	35	389	776	286	115	213
14....	60	38	....	....	12	....	30	374	720	260	105	199
15....	56	38	....	....	....	....	35	371	664	276	106	186
16....	56	39	....	....	....	....	46	422	652	276	163	146
17....	57	51	....	....	....	....	54	550	644	280	188	126
18....	59	56	....	....	....	....	54	700	606	248	186	117
19....	64	60	....	....	....	....	70	837	553	210	207	115
20....	56	56	....	....	....	....	96	940	564	193	204	110
21....	72	48	....	....	....	....	83	1060	520	180	183	105
22....	67	45	....	....	....	....	43	1200	494	173	173	105
23....	65	39	....	....	....	....	59	1240	502	163	165	105
24....	75	29	....	....	....	....	87	1130	484	165	153	104
25....	52	28	....	....	....	....	94	1020	466	151	104	102
26....	59	26	....	....	....	....	116	896	448	142	81	102
27....	82	26	....	....	....	....	175	980	412	134	92	106
28....	80	26	....	....	....	....	218	1010	386	126	102	105
29....	73	24	....	....	....	....	324	1010	365	121	96	99
30....	67	24	....	....	....	....	335	1040	351	113	86	98
31....	60	....	....	....	....	....	....	1110	....	134	81	....
Total	2032	1273	558	620	476	1116	2429	21892	19771	7137	4792	3963
Mean.	65.5	42.4	18	20	17	36	81	706	659	230	155	132
Max..	82	64	....	....	....	....	335	1240	1130	433	264	412
Min..	49	24	....	....	....	....	30	371	351	113	81	67
Acre-ft.	4030	2520	1110	1230	944	2210	4820	43400	39200	14100	9530	7860

Discharge of North Fork of South Platte River at South Platte for the Year Ending Sept. 30, 1934. Drainage Area, 484 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	98	77	57	....	....	....	68	167	216	116	59	62
2....	97	80	60	....	....	....	64	165	202	88	59	62
3....	97	74	50	....	....	....	69	191	205	73	59	70
4....	102	79	47	....	....	....	65	187	205	69	57	69
5....	95	61	45	40	....	....	69	187	191	84	54	68
6....	90	59	33	....	....	....	59	221	178	118	93	68
7....	88	38	58	....	....	....	69	277	171	85	100	65
8....	92	84	70	....	....	....	84	290	160	74	71	61
9....	88	87	58	....	....	....	111	290	151	70	74	61
10....	85	80	69	....	....	....	120	308	149	118	97	61
11....	79	80	73	....	....	....	118	290	141	147	97	60
12....	74	74	62	....	....	....	124	292	136	139	88	58
13....	80	65	58	....	....	....	130	300	130	134	71	56
14....	82	65	53	....	....	....	126	277	128	126	65	56
15....	84	66	40	....	....	....	120	257	136	124	70	60
16....	82	68	27	....	41	....	120	250	160	126	100	57
17....	77	73	30	....	....	....	109	245	156	126	109	51
18....	82	70	32	....	....	....	102	250	143	126	90	49
19....	79	68	44	....	....	....	97	252	132	116	85	46
20....	77	68	....	....	....	....	102	252	120	97	120	46
21....	79	69	....	....	....	....	118	250	118	54	111	54
22....	79	66	....	....	....	....	132	248	116	53	85	57
23....	79	68	....	....	....	....	141	238	109	93	82	53
24....	77	62	....	....	....	....	141	226	105	102	71	53
25....	79	70	....	....	....	....	145	238	180	88	70	52
26....	76	59	....	....	....	....	167	240	182	113	68	51
27....	74	65	....	....	....	....	158	231	167	100	71	50
28....	69	60	....	....	....	....	139	214	156	84	70	50
29....	70	57	....	....	....	....	141	207	149	71	74	51
30....	71	56	....	....	....	....	158	226	154	62	70	51
31....	74	....	....	....	....	....	66	236	....	59	65	....
Total	2555	2098	....	....	....	....	3366	7502	4646	3035	2455	1708
Mean.	82.4	69.9	47.0	40	40	56	112	242	155	97.9	79.2	56.9
Max..	102	88	73	....	....	....	167	308	216	147	120	70
Min..	69	56	....	....	....	....	59	165	105	53	54	46
Acre-ft.	5070	4160	2890	2460	2220	3440	6660	14900	9220	6020	4870	3390

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at South Platte for Year Ending Sept. 30, 1933.
Drainage Area, 2,550 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	208	204	115	48	36	58	152	716	1510	498	503	305
2....	204	223	112	48	36	58	152	824	1640	475	552	266
3....	213	226	112	48	36	58	152	850	1150	557	557	288
4....	226	206	112	48	36	58	152	870	1200	656	326	288
5....	226	223	115	48	36	58	116	863	1350	603	295	396
6....	287	228	103	55	28	60	179	964	1330	613	592	369
7....	239	204	96	52	28	60	179	919	1330	1060	508	354
8....	201	187	42	52	28	60	179	980	1130	972	518	354
9....	206	194	30	52	28	80	179	972	1180	1010	417	430
10....	213	206	38	52	28	78	179	863	1270	1080	522	645
11....	250	170	62	59	29	75	110	919	1120	804	518	447
12....	256	147	62	59	29	75	110	912	1020	603	438	413
13....	223	148	62	59	29	75	110	850	1170	572	409	333
14....	221	172	62	59	35	75	110	811	1470	537	400	366
15....	204	156	62	59	36	75	110	780	1460	666	479	322
16....	187	158	63	52	38	67	180	891	1400	527	461	266
17....	185	176	63	52	38	67	180	1160	1400	489	484	236
18....	185	179	63	52	38	67	180	1510	1290	466	508	223
19....	187	179	63	52	38	67	180	1710	1310	552	592	218
20....	181	179	63	52	38	67	180	1650	1230	547	466	207
21....	176	172	55	48	42	81	127	1740	1300	598	396	197
22....	176	192	55	48	42	81	127	1850	1200	430	421	197
23....	183	168	55	48	42	81	127	1540	1290	447	425	190
24....	201	147	55	48	42	81	127	1510	1160	577	421	183
25....	287	154	55	48	42	81	127	1330	980	547	377	176
26....	226	154	47	46	48	136	300	1300	972	326	351	174
27....	303	158	47	46	48	136	400	1350	824	282	351	176
28....	309	164	47	46	48	136	508	1370	733	282	366	171
29....	271	164	47	46	....	136	733	1280	672	305	392	167
30....	268	114	47	46	....	136	716	1380	592	302	326	183
31....	265	....	47	46	....	136	....	1540	....	377	305	....
Total	6967	5352	2057	1574	1022	2559	6361	36204	35683	17760	13676	8540
Mean.	225	178	66.4	50.8	36.5	82.5	212	1170	1190	573	441	285
Max.	309	228	115	....	....	....	733	1850	1640	1080	592	645
Min.	176	114	30	....	....	....	....	716	592	282	295	167
Acre-ft.	13800	10600	4080	3120	2030	5070	12600	71900	70800	35200	27100	17000

Discharge of South Platte River at South Platte for Year Ending Sept. 30, 1934.
Drainage Area, 2,550 Square Miles. Altitude, 6,097 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	184	158	134	....	....	....	134	294	628	458	328	220
2....	182	166	138	....	....	....	144	296	686	427	341	228
3....	182	170	124	....	....	....	168	321	608	294	302	238
4....	188	174	138	....	....	....	166	308	565	277	249	238
5....	186	147	131	70	....	....	149	308	382	288	249	252
6....	184	130	111	....	....	....	136	368	379	305	312	238
7....	170	149	111	....	....	....	152	538	434	271	337	223
8....	164	144	121	....	....	....	170	408	427	260	334	218
9....	162	150	114	....	....	....	192	482	408	266	321	225
10....	158	147	124	....	....	....	202	478	390	337	252	249
11....	157	150	122	....	....	....	204	427	331	344	354	223
12....	155	150	120	....	....	....	208	397	299	334	351	230
13....	154	152	120	....	....	....	214	419	302	315	368	236
14....	154	154	107	....	....	....	233	415	318	305	365	228
15....	152	158	93	....	....	....	218	454	337	302	397	223
16....	152	170	87	....	83	....	208	499	285	305	450	238
17....	152	180	87	....	....	....	194	516	263	334	462	243
18....	152	176	86	....	....	....	190	466	280	337	390	243
19....	155	147	....	....	....	....	214	478	294	331	390	236
20....	158	142	....	....	....	....	216	404	280	294	365	206
21....	158	141	....	....	....	....	223	390	266	263	324	210
22....	157	139	....	....	....	....	260	375	263	263	296	212
23....	155	131	....	....	....	....	291	375	271	305	294	216
24....	153	125	....	....	....	....	302	516	243	315	302	208
25....	162	134	....	....	....	....	312	666	246	296	294	206
26....	170	125	....	....	....	....	331	547	482	368	238	204
27....	158	134	....	....	....	....	321	520	462	412	236	208
28....	155	131	....	....	....	....	285	666	458	390	218	208
29....	154	125	....	....	....	....	282	661	466	368	274	190
30....	152	131	....	....	....	141	288	743	458	358	393	186
31....	155	....	....	....	....	138	....	647	....	324	243	....
Total	5035	4430	....	....	....	....	6607	14382	11511	10046	10029	6683
Mean.	162	148	102	73	80	103	220	464	384	324	324	223
Max.	188	180	....	....	....	....	331	743	686	458	462	252
Min.	152	125	....	....	....	....	134	294	243	260	218	186
Acre-ft.	9960	8810	6270	4490	4440	6330	13100	28500	22800	19900	19900	13300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Waterton for Year Ending Sept. 30, 1933.
Drainage Area, 2,621 Square Miles. Altitude, 5,507 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	47	18	28	0.5	2.2	0.6	94	488	821	402	357	117
2....	41	20	30	0.5	2.2	0.4	94	558	889	392	372	85
3....	45	16	30	0.5	2.2	0.2	91	558	642	433	342	108
4....	62	18	32	0.5	4.3	0.2	88	683	636	505	530	114
5....	57	20	28	0.5	2.1	0.3	62	642	882	483	485	104
6....	94	45	26	0.5	0.8	0.1	52	654	896	461	260	55
7....	39	34	28	0.5	0.7	0.1	86	455	1000	308	337	52
8....	36	30	14	0.5	0.7	0.3	154	392	834	710	367	49
9....	39	32	18	0.5	0.6	0.4	154	428	821	612	272	239
10....	43	30	22	0.5	0.6	0.5	118	466	821	704	337	552
11....	67	24	18	0.5	0.5	0.7	28	612	749	488	303	377
12....	88	26	24	0.5	0.4	0.7	7.6	630	692	299	268	268
13....	52	28	20	0.5	0.5	0.8	9.8	511	742	268	247	178
14....	45	28	18	0.5	0.7	0.9	9.8	472	932	190	234	159
15....	39	32	14	0.5	0.9	1.0	54	444	1030	234	264	114
16....	32	32	9.8	0.5	2.1	1.0	77	576	903	222	230	88
17....	22	34	11.0	0.5	2.1	1.0	83	775	868	342	194	67
18....	30	41	7.6	0.5	1.0	11.0	80	968	801	308	210	58
19....	32	43	7.6	0.5	5.4	12	88	1130	781	387	239	49
20....	28	43	6.5	0.5	3.2	11	158	1230	685	392	214	28
21....	26	36	4.3	0.5	2.1	11	83	1330	781	428	194	34
22....	30	54	2.1	0.6	1.0	14	67	1340	742	327	210	31
23....	32	43	1.0	0.6	1.0	16	121	1040	834	342	234	43
24....	50	26	3.2	0.7	1.0	16	100	946	717	439	226	40
25....	97	26	2.1	0.8	1.0	12	102	841	444	439	198	37
26....	34	28	1.0	0.7	0.8	16	176	704	439	272	172	40
27....	22	26	1.0	0.8	0.9	18	260	729	500	247	163	43
28....	22	32	1.0	0.8	0.8	32	382	729	642	198	182	31
29....	30	36	1.0	0.8	....	62	612	736	551	226	198	28
30....	28	45	1.0	0.9	....	86	522	808	472	286	159	40
31....	22	....	1.0	0.8	....	80	....	848	....	268	128	....
Total	1331	946	411.2	18.0	41.8	406.2	4013	22723	22547	11612	8126	3228
Mean.	42.9	31.5	13.3	0.6	1.49	13.1	134	733	752	375	262	108
Max..	97	54	32	0.9	5.4	86	612	1340	1030	710	530	552
Min..	22	16	1	0.5	0.4	0.1	7.6	392	439	190	128	28
Acre-ft.	2640	1870	818	37	83	806	7970	45100	44700	23100	15100	6430

Discharge of South Platte River at Waterton for Year Ending Sept. 30, 1934.
Drainage Area, 2,621 Square Miles. Altitude, 5,507 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	104	44	34	17	7	63	5	157	361	130	148	48
2....	148	52	52	16	7	63	7	148	500	126	144	55
3....	157	52	44	15	7	55	10	144	448	95	135	63
4....	175	74	71	15	10	24	10	48	367	79	24	67
5....	161	55	52	14	10	41	7	30	185	78	27	78
6....	148	48	55	14	7	55	5	95	175	95	78	59
7....	122	67	55	13	10	63	7	328	220	55	117	52
8....	91	71	37	13	10	30	5	205	210	44	117	55
9....	82	71	48	20	10	37	5	240	205	48	180	55
10....	63	55	44	17	10	34	4	210	180	113	117	86
11....	52	52	44	17	13	41	5	215	122	144	185	63
12....	41	44	44	13	13	63	5	260	78	144	215	67
13....	30	113	37	17	13	34	10	148	74	117	180	71
14....	34	126	34	10	17	20	10	13	91	122	185	74
15....	27	44	30	10	7	13	10	122	126	126	190	78
16....	27	55	30	13	17	10	10	270	148	130	245	71
17....	30	91	37	13	41	27	5	361	126	139	306	74
18....	41	91	48	13	24	10	27	328	126	157	280	67
19....	55	63	71	10	20	13	82	344	144	157	240	63
20....	48	55	95	13	27	86	108	270	130	126	215	37
21....	48	74	59	10	52	20	126	255	139	91	157	30
22....	44	86	37	13	37	10	148	240	117	67	135	24
23....	41	59	41	10	48	10	185	235	104	108	135	24
24....	44	48	48	10	44	10	215	356	52	104	152	30
25....	41	59	48	10	34	10	220	507	117	104	157	30
26....	37	41	55	10	34	10	230	424	144	185	86	27
27....	37	52	44	10	52	10	215	384	135	230	78	24
28....	41	37	27	10	55	7	166	395	126	220	71	17
29....	44	34	20	10	....	5	152	372	130	190	126	27
30....	34	30	17	7	....	7	166	465	126	185	265	24
31....	30	....	17	7	....	7	....	407	....	130	59	....
Total	2077	1843	1375	390	636	888	2160	7976	5206	3834	4749	1540
Mean.	67.0	61.4	44.4	12.6	22.7	28.6	72.0	257	174	124	153	51.3
Max..	175	126	95	20	55	86	230	507	500	230	306	86
Min..	27	30	17	7	7	5	4	13	52	44	24	17
Acre-ft.	4120	3650	2730	775	1260	1760	4280	15800	10400	7620	9410	3050

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Denver for Year Ending Sept. 30, 1933.
Drainage Area, 3,840 Square Miles. Altitude, 5,240 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	127	86	90	34	32	47	106	1200	1210	455	306	555
2....	125	83	93	38	30	47	111	1270	1330	395	495	540
3....	108	80	96	38	30	42	98	1320	1180	445	2240	500
4....	125	83	90	44	38	40	103	2220	982	555	657	460
5....	130	71	96	44	40	40	106	1820	1110	585	415	420
6....	127	71	93	47	30	48	86	1580	1160	531	325	380
7....	148	93	62	47	32	36	80	1420	1220	1140	440	340
8....	127	88	55	51	32	40	130	1210	1090	1460	483	335
9....	142	83	51	51	30	38	199	1230	958	1040	450	640
10....	136	88	40	47	32	38	248	1230	982	1040	400	9310
11....	130	86	40	44	30	38	157	1320	918	974	405	2520
12....	160	71	40	42	32	40	88	1280	806	644	390	1550
13....	160	69	42	44	34	36	96	1130	838	477	350	776
14....	142	67	44	44	34	40	66	1040	910	380	365	611
15....	127	73	44	40	34	42	73	998	1130	335	395	573
16....	114	78	47	40	40	38	93	982	1030	273	420	460
17....	98	73	49	40	44	49	98	1250	990	306	430	410
18....	100	88	49	38	42	88	100	1730	894	325	415	360
19....	103	98	49	34	36	73	93	2670	854	310	507	315
20....	111	93	49	44	38	62	260	2960	806	385	567	273
21....	98	93	47	49	47	55	287	3000	748	420	477	232
22....	98	88	44	47	44	57	252	3060	769	445	507	196
23....	100	103	49	42	53	60	385	2700	798	385	549	166
24....	136	90	51	44	55	53	465	2170	894	440	585	150
25....	136	76	55	42	49	64	385	1860	624	495	624	140
26....	145	76	51	44	51	55	445	1490	501	470	585	130
27....	96	73	47	40	49	51	513	1350	455	440	1160	116
28....	93	76	38	44	47	60	624	1340	579	410	998	116
29....	100	73	38	40	....	69	1290	1280	604	380	727	114
30....	93	88	36	36	....	114	1620	1260	543	350	671	106
31....	80	....	34	38	....	125	....	1300	....	320	604	....
Total	3715	2458	1709	1317	1085	1675	8657	50670	26913	16610	17942	22794
Mean.	120	81.9	55.1	42.5	38.8	54.0	289	1630	897	536	579	760
Max..	160	103	96	51	55	125	1620	3060	1330	1460	2240	9310
Min..	80	67	34	34	30	36	66	982	455	273	306	106
Acre-ft.	7380	4870	3390	2610	2150	3320	17200	100000	53400	33000	35600	45200

Discharge of South Platte River at Denver for Year Ending Sept. 30, 1934.
Drainage Area, 3,840 Square Miles. Altitude, 5,240 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	126	101	119	110	74	214	92	218	428	122	136	74
2....	157	119	180	104	74	227	101	205	482	129	140	84
3....	180	136	150	104	74	259	173	380	509	104	132	84
4....	184	143	143	104	69	222	154	240	493	95	104	76
5....	188	143	150	92	71	200	136	161	343	92	82	79
6....	180	110	143	95	64	205	143	169	227	84	71	82
7....	169	126	143	92	132	245	113	313	222	87	129	84
8....	129	146	154	87	89	222	113	328	250	69	129	87
9....	107	143	143	104	82	196	113	298	245	60	240	89
10....	95	143	150	104	79	165	116	283	205	66	231	98
11....	92	129	150	104	89	176	122	236	173	107	205	101
12....	82	126	132	89	119	192	116	328	169	116	192	79
13....	69	140	126	89	136	205	126	406	157	104	196	74
14....	71	136	122	92	129	169	126	169	154	87	176	79
15....	79	129	113	113	129	143	132	129	146	95	180	76
16....	82	119	79	95	122	132	116	222	157	84	209	84
17....	76	165	69	82	169	157	101	374	154	119	278	87
18....	89	176	87	79	173	161	92	369	146	136	269	101
19....	110	165	119	79	136	157	122	364	136	132	240	92
20....	126	132	157	79	136	176	192	323	140	143	218	122
21....	129	157	172	87	150	205	173	283	129	101	180	101
22....	126	169	129	110	161	140	184	254	126	95	146	79
23....	104	165	116	89	146	126	205	236	122	87	132	60
24....	104	154	113	82	143	129	227	293	92	107	146	54
25....	98	146	107	87	132	110	231	471	71	107	165	76
26....	95	150	92	82	146	98	283	482	140	101	129	89
27....	101	136	110	84	180	101	308	422	146	218	95	84
28....	104	146	107	82	184	87	227	417	126	184	98	92
29....	98	107	107	71	....	87	209	395	126	173	84	89
30....	84	95	101	69	....	95	218	476	126	157	184	74
31....	82	....	101	76	....	89	....	554	....	129	161	....
Total	3516	4152	3884	2816	3388	5090	4764	9798	6140	3490	5077	2530
Mean.	113	138	125	90.8	121	164	159	316	205	113	164	84.3
Max..	188	176	180	113	184	259	308	554	509	218	278	122
Min..	69	95	69	69	64	87	92	129	71	60	71	54
Acre-ft.	6950	8210	7690	5580	6720	10100	9460	19400	12200	6950	10100	5020

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Henderson for Year Ending Sept. 30, 1933.
Drainage Area, 4,740 Square Miles. Altitude, 5,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	72	54	36	....	....	222	72	978	930	427	184	164
2....	52	42	33	....	....	222	66	946	1400	394	484	147
3....	41	32	32	....	....	195	70	922	1590	472	734	110
4....	52	24	30	....	....	174	115	2250	1220	536	524	97
5....	74	28	28	....	....	170	110	1680	1360	519	362	126
6....	76	42	38	....	....	164	74	1290	1590	389	203	129
7....	102	50	64	....	....	110	62	1070	1660	1170	337	117
8....	83	60	72	....	....	99	79	829	1460	3000	322	123
9....	70	68	....	....	....	85	138	728	1050	1060	332	129
10....	90	66	....	....	....	76	244	836	1060	734	248	3420
11....	104	44	....	....	....	70	244	1110	1320	1210	257	2970
12....	104	41	....	....	....	46	153	1170	1350	536	226	2080
13....	112	42	....	....	....	60	115	914	1500	433	207	906
14....	97	39	....	....	....	79	120	722	1490	327	181	596
15....	85	38	....	....	....	76	110	638	1620	760	195	501
16....	72	36	....	....	....	49	107	584	1590	303	181	378
17....	60	35	....	....	....	32	92	754	1390	294	174	342
18....	64	32	....	....	....	97	79	1260	1310	280	150	280
19....	90	31	54	....	....	104	92	1870	1140	195	153	231
20....	68	26	....	....	....	81	342	2420	1280	240	138	214
21....	70	27	....	....	199	49	317	2780	1270	266	141	195
22....	83	31	....	....	207	70	367	3080	1030	289	123	174
23....	70	32	....	....	214	58	450	3100	836	244	129	144
24....	126	32	....	....	226	46	427	2670	822	271	138	129
25....	144	26	....	60	231	41	337	2040	602	307	141	123
26....	129	26	....	64	240	42	184	1470	362	275	138	123
27....	107	26	....	68	235	39	347	1090	373	144	141	120
28....	76	24	....	....	231	38	275	1160	566	102	584	117
29....	83	30	....	....	....	52	682	1060	536	83	262	112
30....	79	33	....	....	....	74	1010	922	495	72	271	94
31....	92	....	....	....	....	85	....	890	....	110	195	....
Total	2627	1117	....	....	....	2805	6880	43233	34202	15442	7855	14391
Mean.	84.7	37.2	54.9	75.9	110	90.5	229	1390	1140	498	253	480
Max..	144	68	....	....	....	222	1010	3100	1660	3000	734	3420
Min..	41	24	....	....	....	32	62	584	362	72	123	94
Acre-ft.	5210	2210	3380	4670	6110	5560	13600	85500	67800	30600	15600	28600

Discharge of South Platte River at Henderson for Year Ending Sept. 30, 1934.
Drainage Area, 4,740 Square Miles. Altitude, 5,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	96	28	20	208	204	66	58	130	550	102	118	118
2....	102	36	38	211	200	68	56	135	394	102	130	125
3....	123	23	123	211	149	64	63	485	435	102	130	128
4....	130	27	128	214	183	59	66	599	377	108	130	125
5....	149	56	133	211	197	58	68	314	314	128	111	133
6....	149	83	120	183	194	58	63	229	194	113	133	130
7....	146	66	152	164	280	61	61	335	295	100	116	104
8....	135	46	157	160	266	61	61	557	285	102	141	102
9....	106	30	133	180	204	59	64	479	214	116	138	104
10....	52	25	138	211	177	61	63	592	197	102	350	106
11....	38	26	135	204	214	58	42	511	177	108	152	106
12....	31	26	130	187	271	56	42	511	125	113	149	106
13....	23	26	125	177	330	54	52	967	93	118	146	91
14....	19	27	123	187	319	54	111	524	85	106	133	89
15....	18	27	118	222	295	76	108	254	133	96	141	93
16....	18	27	104	225	276	194	96	214	194	89	146	85
17....	18	28	91	211	319	266	79	366	187	91	167	85
18....	18	27	93	211	366	295	96	578	135	102	204	98
19....	20	25	218	211	146	146	87	613	93	120	197	96
20....	30	23	262	208	108	93	108	564	89	123	194	98
21....	83	21	285	211	98	77	118	473	118	130	146	91
22....	51	18	246	225	113	68	120	518	116	130	125	81
23....	35	17	237	222	116	74	135	557	98	133	123	72
24....	28	20	218	211	100	70	164	571	79	146	138	66
25....	30	18	208	211	70	70	174	745	72	152	157	64
26....	32	15	208	200	68	63	204	923	96	152	144	49
27....	35	18	204	200	66	63	324	585	104	154	116	46
28....	34	15	218	197	70	59	250	518	98	149	130	45
29....	31	17	218	204	....	59	174	599	98	125	133	58
30....	27	18	214	204	....	64	138	745	102	123	138	54
31....	27	....	214	211	....	66	....	1100	....	128	174	....
Total	1834	859	5011	6292	5399	2640	3245	16291	5547	3663	4650	2748
Mean.	59.2	28.6	162	203	193	85.2	108	526	185	118	150	91.6
Max..	149	83	285	225	366	295	324	1100	550	154	350	133
Min..	18	15	20	160	66	54	42	130	72	89	111	45
Acre-ft.	3640	1700	9960	12500	10700	5240	6430	32300	11000	7260	9220	5450

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Fort Lupton for Year Ending Sept. 30, 1933.
Drainage Area, 5,070 Square Miles. Altitude, 4,900 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	64	99	84	....	....	252	78	1180	768	450	95	138
2....	56	101	82	....	....	246	64	940	996	396	266	112
3....	56	89	82	....	....	236	64	912	1300	460	933	85
4....	58	80	78	....	....	232	75	2180	975	530	1660	66
5....	73	80	72	....	....	216	109	1830	1010	510	620	58
6....	78	80	75	....	....	210	89	1160	1250	418	340	64
7....	73	82	84	151	....	159	78	1020	1300	680	260	68
8....	91	105	....	159	....	143	75	768	1170	2100	340	62
9....	87	109	....	159	....	123	103	680	804	1190	336	70
10....	89	123	....	165	....	103	204	810	810	660	280	3000
11....	89	109	....	151	....	105	298	1020	1060	1040	270	3000
12....	97	99	....	148	....	95	280	1160	1090	620	252	2900
13....	116	99	....	146	....	84	207	828	1160	427	216	926
14....	128	97	....	143	....	97	229	655	1240	332	177	670
15....	118	103	....	138	....	109	195	570	1280	625	151	535
16....	109	103	....	130	....	93	162	510	1320	328	133	455
17....	97	93	....	135	....	78	146	650	1150	274	125	392
18....	99	89	....	133	....	101	128	1170	1140	328	125	352
19....	130	91	75	128	236	151	128	1750	1010	219	109	298
20....	109	89	....	123	213	130	195	2160	1070	213	121	270
21....	107	87	....	123	219	93	409	2700	1140	236	130	236
22....	114	89	....	130	226	91	396	2780	1030	266	103	223
23....	118	91	....	....	223	85	480	2930	822	239	95	207
24....	118	85	....	....	232	70	535	2560	840	249	95	189
25....	201	82	....	101	239	68	450	1880	722	298	95	165
26....	195	84	....	107	239	62	284	1130	418	298	103	128
27....	192	84	....	99	246	58	360	954	396	201	97	112
28....	156	84	....	....	252	56	328	996	470	123	422	103
29....	138	85	....	....	....	64	545	954	520	105	232	100
30....	125	87	....	....	....	80	1660	816	485	82	223	100
31....	112	....	....	....	....	87	....	780	....	73	189	....
Total	3393	2778	....	....	....	3777	8354	40433	28746	13970	8593	15084
Mean.	109	92.6	77.3	119	143	122	278	1300	958	451	277	503
Max..	201	123	....	....	....	252	1660	2930	1320	2100	1660	3000
Min..	56	80	....	....	....	56	64	510	396	73	95	58
Acre-ft.	6700	5510	4750	7320	7940	7500	16500	79900	57000	27700	17000	29900

Discharge of South Platte River at Fort Lupton for Year Ending Sept. 30, 1934.
Drainage Area, 5,070 Square Miles. Altitude, 4,900 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	99	73	70	282	256	124	93	115	501	49	50	58
2....	98	86	88	285	259	119	89	119	373	44	49	50
3....	114	84	173	288	227	115	97	253	406	46	49	62
4....	129	69	178	288	227	101	106	493	362	60	46	50
5....	163	99	183	275	256	97	112	305	318	78	38	50
6....	164	137	170	263	263	93	108	215	231	65	67	71
7....	161	135	202	234	288	93	97	247	218	47	47	71
8....	147	133	207	227	341	86	91	387	256	50	55	55
9....	137	110	183	243	288	86	88	348	221	47	47	57
10....	95	97	188	272	213	88	91	425	193	44	170	64
11....	78	80	185	269	250	82	86	395	188	54	78	65
12....	65	73	180	259	305	82	76	362	147	47	50	65
13....	54	69	175	253	351	84	76	521	99	49	47	47
14....	46	65	173	256	348	82	104	549	73	54	47	44
15....	41	65	168	275	344	78	147	308	91	50	46	57
16....	43	69	254	288	331	150	128	237	154	52	60	55
17....	40	67	141	282	338	263	117	256	170	47	64	60
18....	41	67	143	282	395	305	112	387	135	52	95	69
19....	47	69	268	266	269	250	112	452	71	52	104	73
20....	50	69	311	266	190	147	115	467	58	52	99	76
21....	76	67	338	259	190	121	147	410	89	49	82	91
22....	112	71	338	263	152	106	167	452	112	43	52	78
23....	91	80	311	279	160	106	172	429	82	57	38	57
24....	67	80	295	279	160	112	183	440	58	62	44	47
25....	60	76	288	272	112	104	170	493	37	69	60	62
26....	64	73	285	269	110	97	167	566	62	65	55	60
27....	69	71	282	263	115	95	295	482	73	78	43	33
28....	73	67	285	266	121	93	243	417	60	80	37	30
29....	74	65	285	259	....	89	185	452	54	64	52	38
30....	73	67	285	253	....	97	133	482	54	46	46	38
31....	71	....	285	253	....	101	....	672	....	46	74	....
Total	2642	2433	6917	8268	6859	3646	3907	12134	4946	1698	1891	1733
Mean.	85.2	81.1	223	267	245	118	130	391	165	54.8	61.0	57.8
Max..	164	137	338	288	395	305	295	670	501	80	170	91
Min..	40	65	70	227	110	78	76	115	37	43	37	30
Acre-ft.	5240	4830	13700	16400	13600	7260	7740	24000	9820	2370	3750	3440

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River Near Kersey for Year Ending Sept. 30, 1933.
Drainage Area, 9,500 Square Miles. Altitude, 4,600 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	147	400	345	322	438	520	116	1510	837	107	126	154
2....	155	395	341	341	433	500	105	1060	651	90	128	154
3....	155	375	341	370	422	500	92	934	880	123	644	142
4....	164	345	327	390	428	474	88	1070	1030	120	1020	120
5....	164	336	309	400	433	481	86	3250	651	131	1050	109
6....	139	332	291	406	433	474	78	2510	1000	116	405	111
7....	122	327	278	422	428	494	72	2020	1230	116	250	120
8....	127	318	291	428	430	422	72	1640	1280	268	178	118
9....	124	318	282	438	430	365	70	1290	828	1420	157	123
10....	122	318	350	455	450	355	67	1310	447	804	137	157
11....	117	350	385	450	450	304	62	1730	363	435	120	1380
12....	117	438	375	433	450	273	58	2360	896	665	118	5810
13....	112	455	428	422	475	256	58	3300	1070	330	109	3190
14....	115	468	450	422	500	236	56	1840	1570	166	107	1820
15....	127	438	428	416	541	228	55	1470	1640	140	109	1200
16....	124	416	428	390	520	210	55	1300	1200	290	109	888
17....	122	411	400	390	548	196	54	1140	1050	231	111	725
18....	127	416	400	390	548	196	54	1290	1020	192	134	602
19....	164	422	406	370	541	182	56	2040	1090	128	142	504
20....	173	433	406	370	500	202	65	3100	896	102	145	405
21....	206	406	390	375	520	202	123	3800	1090	100	140	320
22....	224	385	380	380	534	202	491	4180	325	131	118	246
23....	244	370	375	370	520	185	658	4380	837	140	113	205
24....	243	355	380	375	474	173	796	4500	630	142	111	181
25....	264	355	375	370	514	173	896	4080	556	123	111	188
26....	304	360	370	370	534	167	680	3040	411	120	185	205
27....	350	350	380	365	541	164	569	2230	231	118	142	235
28....	355	350	390	375	541	161	478	1980	128	109	195	231
29....	375	350	375	390	....	155	417	1910	111	105	250	220
30....	400	350	355	411	....	115	536	1560	100	111	195	212
31....	395	....	327	433	....	132	....	1190	....	120	166	....
Total	6082	11342	11358	12239	13576	8697	7063	69014	24048	7293	7025	20075
Mean.	196	378	366	395	485	281	235	2230	802	235	227	669
Max..	400	468	450	455	548	520	896	4500	1640	1420	1050	5810
Min..	112	318	278	322	422	115	54	934	100	90	107	109
Acre-ft.	12000	22500	22500	24300	26900	17300	14000	137000	47700	14400	14000	39800

Discharge of South Platte River Near Kersey for Year Ending Sept. 30, 1934.
Drainage Area 9,500 Square Miles. Altitude 4,600 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	291	370	457	597	557	401	378	57	145	132	81	70
2....	284	392	570	597	550	370	370	61	148	115	83	75
3....	284	425	610	604	557	370	387	79	152	108	86	77
4....	298	452	648	617	544	353	416	128	140	112	82	75
5....	302	514	672	604	526	336	440	378	132	155	81	74
6....	302	544	664	590	538	328	462	294	128	135	81	74
7....	309	577	664	550	550	332	457	224	115	135	81	72
8....	328	597	664	544	570	332	425	180	104	126	86	74
9....	340	590	656	563	610	340	401	148	112	108	83	77
10....	344	577	664	577	597	340	374	158	108	102	79	83
11....	361	544	656	584	544	340	361	197	117	98	83	75
12....	366	532	664	563	538	324	357	165	86	94	104	75
13....	361	526	640	557	597	317	332	160	86	88	112	74
14....	370	520	656	577	640	313	305	452	112	83	110	72
15....	387	520	617	577	633	298	298	526	321	84	112	74
16....	387	520	617	590	633	302	309	264	336	86	123	77
17....	397	508	617	604	633	361	280	162	245	83	121	75
18....	401	490	617	597	633	435	245	126	236	86	121	70
19....	406	484	617	597	679	479	203	90	194	83	121	68
20....	411	474	617	597	550	397	172	86	152	88	96	88
21....	416	468	584	590	474	344	135	79	135	86	79	102
22....	430	468	633	590	416	324	112	74	121	104	72	100
23....	430	462	664	597	392	357	100	68	112	119	66	100
24....	425	457	640	597	392	374	88	68	112	148	66	108
25....	416	452	633	590	366	383	79	75	108	145	65	108
26....	401	452	625	577	336	383	86	86	104	96	65	88
27....	392	452	617	584	370	401	86	79	100	84	68	86
28....	387	446	617	570	411	406	79	83	106	86	70	83
29....	392	446	625	570	....	383	75	77	128	84	63	84
30....	383	446	633	557	....	374	61	74	130	86	68	88
31....	370	....	617	544	....	378	....	104	....	86	70	....
Total	11371	14705	19475	18052	14836	11175	7873	4802	4325	3225	2684	2446
Mean.	367	490	628	582	530	360	262	155	144	104	86.6	81.5
Max..	430	597	672	617	679	479	462	526	336	155	123	108
Min..	284	370	457	544	336	298	61	57	86	83	65	68
Acre-ft.	22600	29200	38600	35800	29400	22100	15600	9530	8570	6400	5320	4850

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Sublette for Year Ending Sept. 30, 1933.
Drainage Area, 12,900 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	228	102	63	131	51	63	246	153	860	235	136	178
2....	235	98	63	143	51	64	242	172	711	223	142	154
3....	242	100	64	92	68	64	235	151	637	220	242	157
4....	184	100	78	89	151	64	220	162	848	235	380	167
5....	184	96	81	69	170	60	210	242	770	223	258	165
6....	184	94	78	63	63	64	203	678	679	196	185	167
7....	185	96	78	58	66	58	200	692	950	191	154	134
8....	178	102	83	60	66	57	200	562	1080	204	139	122
9....	184	106	80	62	66	62	200	184	1020	416	146	114
10....	194	69	78	62	66	60	200	170	649	776	167	144
11....	200	64	81	58	66	62	197	164	452	625	159	252
12....	213	57	85	57	66	69	164	330	480	545	152	1250
13....	231	56	83	56	62	73	141	886	894	576	142	2430
14....	231	58	85	54	63	74	131	134	822	394	144	685
15....	250	56	89	52	69	76	126	284	999	272	139	372
16....	269	56	76	52	73	76	122	217	964	265	142	560
17....	265	60	69	52	68	74	113	197	756	380	142	718
18....	238	60	64	52	94	78	111	172	625	332	136	730
19....	228	57	64	51	71	113	104	276	673	262	142	637
20....	194	57	64	51	74	304	129	880	796	188	154	495
21....	164	60	60	51	66	312	164	1390	901	162	152	394
22....	136	58	58	50	57	325	136	1570	1070	149	154	282
23....	131	58	58	50	58	312	83	1500	1060	165	139	198
24....	126	63	62	50	56	276	80	1410	915	180	139	162
25....	115	63	66	50	54	280	85	1380	782	172	139	146
26....	117	60	69	51	56	280	136	1060	614	162	178	146
27....	117	62	71	69	58	280	187	614	485	157	258	172
28....	111	62	74	92	60	280	143	510	368	149	220	165
29....	102	58	76	58	....	272	126	364	279	129	308	142
30....	104	60	73	51	....	261	126	685	242	129	380	129
31....	106	....	66	51	....	250	....	570	....	139	308	....
Total	5646	2148	2239	1987	1994	4743	4760	17759	22381	8451	5776	11567
Mean..	182	71.6	72.2	64.1	71.2	153	159	573	746	273	186	386
Max..	269	106	89	143	170	325	246	1570	1080	776	380	2430
Min..	102	56	58	50	51	57	80	134	242	129	136	114
Acre-ft.	11200	4260	4440	3940	3950	9410	9460	35200	44400	16800	11400	23000

Discharge of South Platte River at Sublette for Year Ending Sept. 30, 1934.
Drainage Area 12,900 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	127	101	59	48	53	230	178	188	162	150	93	129
2....	129	103	62	50	54	188	155	183	172	150	93	155
3....	132	101	65	51	64	178	143	258	180	143	93	178
4....	158	97	62	50	67	168	141	255	188	138	93	194
5....	222	93	59	48	67	162	129	309	178	145	93	180
6....	224	89	56	50	67	168	123	320	175	136	112	172
7....	230	85	51	48	67	172	123	246	178	127	155	172
8....	230	81	48	48	67	165	118	202	170	127	160	178
9....	208	78	48	50	65	194	116	183	165	123	120	183
10....	165	72	48	51	67	219	120	162	175	120	101	143
11....	162	69	45	50	65	180	123	168	172	118	99	109
12....	175	71	54	48	65	114	180	186	160	116	93	99
13....	172	64	50	51	65	97	236	183	143	123	91	95
14....	155	65	47	51	69	91	285	205	155	125	91	89
15....	143	67	45	50	67	85	285	419	197	120	91	93
16....	109	81	53	51	67	81	295	410	366	125	89	93
17....	93	81	51	51	67	81	298	320	295	125	83	91
18....	93	87	48	50	83	80	295	258	261	120	87	93
19....	97	76	50	51	227	78	285	213	227	118	87	155
20....	97	78	53	51	249	78	255	202	216	112	91	170
21....	95	74	48	51	216	80	222	199	222	109	85	183
22....	95	72	45	50	194	155	199	199	197	101	101	197
23....	83	80	47	50	186	285	194	197	180	107	99	199
24....	93	83	45	51	197	186	186	194	168	109	99	202
25....	99	61	41	51	350	132	178	199	155	103	103	210
26....	93	57	44	51	382	129	178	208	150	107	101	216
27....	85	57	44	53	390	134	183	205	148	109	101	205
28....	83	59	48	53	362	150	191	199	150	107	101	208
29....	78	61	48	51	....	172	183	178	148	101	109	188
30....	78	59	50	51	....	210	183	152	150	91	120	125
31....	76	....	48	53	....	197	....	155	....	93	120	....
Total	4079	2302	1562	1563	3939	4639	5780	6955	5603	3698	3154	4704
Mean..	132	76.7	50.4	50.4	141	150	193	224	187	119	102	157
Max..	230	103	65	53	390	285	298	419	366	150	160	216
Min..	76	57	41	48	53	78	116	152	143	91	83	89
Acre-ft.	8120	4560	3100	3100	7830	9220	11500	13800	11100	7320	6270	9340

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Balzac for Year Ending Sept. 30, 1933.
Drainage Area, 17,700 Square Miles. Altitude, 4,090 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	122	34	16	14	16	20	142	86	244	130	108	372
2....	115	26	17	14	16	20	142	135	241	125	158	250
3....	106	25	17	14	17	20	132	199	184	152	199	225
4....	100	25	17	18	17	20	142	166	181	202	2200	225
5....	65	24	17	18	18	82	128	60	275	271	2500	225
6....	92	28	17	16	18	169	132	56	240	205	1430	225
7....	65	29	17	15	18	49	145	51	211	175	862	225
8....	39	24	18	15	18	26	122	51	322	181	708	200
9....	59	36	18	15	18	26	130	53	425	241	574	200
10....	84	42	18	14	18	23	155	65	367	178	430	300
11....	88	32	18	15	19	24	155	56	326	230	375	2500
12....	84	22	17	15	19	22	155	54	326	230	350	2000
13....	84	20	17	15	19	23	175	56	349	128	275	900
14....	84	20	17	16	20	24	150	59	435	112	200	400
15....	78	18	16	15	20	25	130	67	326	102	181	100
16....	68	17	16	16	21	25	122	48	390	84	187	60
17....	82	17	16	15	22	24	130	46	410	199	181	60
18....	94	18	16	14	22	25	155	41	313	894	175	55
19....	118	18	15	14	21	25	158	36	271	652	181	54
20....	128	18	15	15	20	28	202	36	248	283	178	60
21....	135	18	15	15	20	22	308	37	336	184	178	60
22....	152	17	15	17	20	72	122	70	430	150	190	55
23....	155	17	15	17	20	80	59	287	556	152	208	50
24....	128	17	15	17	20	78	54	267	562	140	205	60
25....	80	18	14	17	20	90	53	140	484	120	196	70
26....	80	18	14	17	20	138	122	115	372	100	420	80
27....	51	18	14	24	20	140	166	56	304	90	638	90
28....	32	18	14	16	20	142	155	46	271	80	367	100
29....	36	18	14	16	....	169	128	50	214	76	680	160
30....	46	17	14	18	....	138	90	92	152	80	514	175
31....	46	....	14	17	....	142	....	132	....	88	484	....
Total	2696	669	493	494	537	1911	4159	2713	9765	6034	15532	9536
Mean.	87	22.3	15.9	15.9	19.2	61.6	139	87.5	326	195	501	318
Max..	155	42	18	24	22	169	308	287	562	894	2500	....
Min..	32	17	14	14	16	20	53	36	152	76	108	....
Acre-ft.	5350	1330	978	978	1070	3790	8270	5380	19400	12000	30800	18900

Discharge of South Platte River at Balzac for Year Ending Sept. 30, 1934.
Drainage Area, 17,700 Square Miles. Altitude, 4,090 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	98	16	9	6	14	131	149	133	158	120	100	160
2....	92	13	13	8	14	59	153	149	149	120	137	166
3....	80	13	13	12	18	50	92	180	156	122	135	180
4....	72	17	11	12	18	38	34	135	183	137	133	180
5....	62	17	14	9	17	28	26	62	190	142	133	173
6....	55	17	18	13	18	24	26	41	178	117	133	144
7....	53	17	12	13	18	21	26	34	168	115	135	153
8....	48	28	11	12	18	18	21	34	173	105	149	183
9....	43	32	11	13	13	14	33	44	173	107	153	203
10....	41	30	11	17	14	17	41	59	176	111	160	203
11....	43	16	11	13	13	14	28	74	183	115	170	206
12....	46	11	11	12	9	13	28	59	183	151	176	190
13....	44	9	11	14	9	13	28	74	176	146	156	166
14....	41	9	11	16	9	13	51	133	170	144	153	158
15....	33	11	8	13	9	12	64	166	178	140	160	168
16....	30	8	8	14	9	12	55	198	178	135	163	178
17....	30	12	8	17	11	14	53	208	170	135	160	178
18....	30	22	8	14	11	14	78	176	135	170	156	166
19....	24	26	9	12	9	12	86	193	115	137	201	156
20....	21	27	12	13	9	12	76	170	96	124	300	156
21....	20	30	8	14	14	14	74	158	131	115	237	168
22....	18	33	7	13	13	39	76	160	105	122	190	173
23....	17	33	9	13	12	74	78	153	98	135	173	178
24....	16	30	9	16	13	28	120	146	137	144	160	186
25....	16	26	7	13	96	16	135	140	163	144	168	186
26....	16	26	8	14	218	14	140	151	151	158	166	188
27....	16	22	11	13	396	12	140	149	126	146	160	166
28....	16	22	8	13	388	12	142	131	117	120	156	151
29....	16	26	7	13	....	12	144	111	113	92	156	170
30....	13	22	8	13	....	51	135	98	109	96	149	178
31....	13	....	7	14	....	115	....	126	....	98	153	....
Total	1163	621	309	402	1410	916	2332	3845	4538	3963	5061	5211
Mean.	37.5	20.7	10.0	13.0	50.4	29.5	77.7	124	151	128	163	174
Max..	98	33	18	17	396	131	153	208	190	170	300	206
Min..	13	8	7	6	9	12	21	34	96	92	100	144
Acre-ft.	2310	1230	615	799	2800	1810	4620	7620	8980	7870	10000	10400

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Platte River at Julesburg for Year Ending Sept. 30, 1933.
Drainage Area, 20,600 Square Miles. Altitude, 3,469 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	67	121	123	299	357	52	117	121	20	27	470
2....	22	67	118	142	254	324	52	84	92	21	27	481
3....	22	96	117	144	278	307	53	115	84	20	27	482
4....	27	82	112	163	265	301	51	159	74	21	27	490
5....	25	77	116	165	249	310	46	183	65	21	27	399
6....	25	80	120	186	224	380	43	184	61	20	25	323
7....	26	77	124	206	270	285	44	183	60	29	23	253
8....	30	108	161	208	327	270	42	183	69	29	43	169
9....	32	98	88	229	353	473	43	223	65	55	250	134
10....	33	88	85	212	316	427	43	222	52	538	149	116
11....	33	103	85	216	308	405	44	337	52	160	77	107
12....	33	123	84	237	330	385	44	495	52	97	61	130
13....	32	119	94	247	343	376	44	659	52	72	50	151
14....	32	112	94	270	301	345	44	584	53	57	45	126
15....	32	113	168	287	348	313	43	559	50	51	34	151
16....	33	112	148	290	446	311	44	515	49	55	31	186
17....	31	117	128	278	547	304	44	473	45	49	29	305
18....	35	117	125	302	505	290	37	440	42	44	28	437
19....	41	118	152	324	492	271	37	409	36	41	23	462
20....	48	112	103	306	480	269	45	373	29	33	25	351
21....	48	111	119	308	432	232	65	342	28	33	25	280
22....	47	111	105	310	402	215	81	312	42	31	29	232
23....	54	113	137	309	402	182	80	260	39	32	27	205
24....	56	108	139	280	390	153	79	363	36	30	33	172
25....	50	110	126	298	392	142	93	302	34	31	33	152
26....	50	110	127	272	379	111	64	271	32	30	67	143
27....	49	117	146	312	390	92	44	304	29	28	72	146
28....	54	117	147	250	376	80	54	281	28	27	224	143
29....	47	119	150	231	....	76	55	251	28	23	437	139
30....	49	119	152	291	....	65	89	207	25	23	528	135
31....	63	....	153	250	....	57	....	163	....	23	529	....
Total	1181	3121	3844	7646	10098	8108	1599	9553	1524	1744	3032	7470
Mean.	38.1	104	124	247	361	262	53.3	308	50.8	56.3	97.8	249
Max..	63	123	168	324	547	473	93	659	121	538	529	490
Min...	22	67	84	123	224	57	37	84	25	20	23	107
Acre-ft.	2340	6190	7260	15200	20000	16100	3170	18900	3020	3460	6010	14800

Discharge of South Platte River at Julesburg for Year Ending Sept 30, 1934.
Drainage Area, 20,600 Square Miles. Altitude, 3,469 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	135	251	183	305	294	386	102	40	27	73	18	21
2....	131	241	218	314	294	587	100	41	26	65	17	22
3....	131	232	248	316	284	610	98	50	28	64	18	23
4....	135	240	275	319	264	522	105	122	29	57	17	22
5....	136	229	296	316	214	431	119	256	27	51	17	21
6....	132	237	291	317	191	314	119	381	26	46	19	22
7....	134	251	301	306	179	315	111	354	26	44	19	23
8....	134	255	305	351	165	307	99	243	24	41	19	23
9....	134	259	310	340	147	270	103	184	24	42	19	27
10....	133	263	314	307	156	249	97	144	25	43	19	31
11....	133	268	308	306	170	232	90	108	24	44	19	26
12....	129	265	318	314	176	201	84	89	23	43	19	24
13....	122	217	318	317	183	185	71	83	23	42	19	23
14....	122	207	321	319	176	167	67	75	56	37	16	22
15....	121	168	315	304	159	158	69	68	814	35	16	23
16....	127	139	318	313	152	148	70	61	1190	32	18	23
17....	138	124	306	307	170	179	74	55	1610	30	26	26
18....	144	124	314	308	185	195	71	49	1390	31	25	31
19....	148	127	316	314	184	217	66	47	776	29	19	31
20....	149	122	311	312	197	177	62	43	543	25	18	35
21....	153	132	308	309	219	135	59	41	410	24	17	39
22....	154	128	313	309	246	109	61	37	292	23	23	38
23....	158	128	318	302	275	108	62	34	228	28	24	38
24....	159	142	304	306	298	162	57	33	193	24	23	40
25....	156	145	300	305	215	187	53	32	152	23	22	43
26....	184	137	318	307	151	208	49	31	130	22	22	42
27....	211	133	304	305	205	196	47	31	111	22	26	42
28....	226	133	340	303	296	169	42	31	98	19	26	41
29....	239	147	332	302	....	143	40	30	88	19	25	35
30....	242	174	309	302	....	120	40	28	81	17	23	35
31....	247	....	315	302	....	109	....	28	....	17	23	....
Total	4797	5618	9347	9657	5845	7496	2287	2849	8494	1112	625	892
Mean.	155	187	302	312	209	242	76.2	91.9	283	35.9	20.3	29.7
Max..	247	268	340	351	298	610	119	381	1610	73	26	43
Min...	121	122	183	302	147	108	40	28	23	17	16	21
Acre-ft.	9530	11100	18600	19200	11600	14900	4530	5650	16800	2210	1250	1770

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Tarryall Creek Near Lake George for Year Ending Sept. 30, 1933.
Drainage Area 460 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	26	24	....	....	....	....	....	127	124	49	41	31
2....	26	13	....	....	....	....	....	176	154	44	40	29
3....	20	15	....	....	....	....	....	267	186	45	49	24
4....	25	44	....	....	....	....	....	289	159	50	161	20
5....	25	36	....	....	....	....	....	275	154	64	110	18
6....	24	37	....	....	....	....	....	194	128	130	112	18
7....	26	34	....	....	....	....	....	195	112	128	110	16
8....	27	31	....	....	....	....	....	169	158	243	101	15
9....	20	38	....	....	....	....	....	103	159	142	190	14
10....	17	26	....	....	....	....	....	83	103	73	118	112
11....	15	19	....	....	....	....	....	88	95	62	82	227
12....	14	13	....	....	....	....	....	88	108	75	56	124
13....	20	9	....	....	....	....	....	103	100	98	52	110
14....	18	8	....	....	....	....	....	99	133	93	50	67
15....	16	7	....	....	....	....	....	95	176	47	37	58
16....	18	10	....	....	....	....	....	92	221	42	33	53
17....	17	27	....	....	....	....	....	83	223	43	34	52
18....	15	26	....	....	....	....	....	92	171	40	34	51
19....	14	20	....	....	....	....	....	103	178	38	33	29
20....	18	20	....	....	....	....	....	115	273	41	33	22
21....	13	24	....	....	....	....	....	128	201	44	33	19
22....	17	24	....	....	....	....	....	140	178	40	33	16
23....	18	33	....	....	....	....	....	128	148	54	32	14
24....	16	44	....	....	....	....	....	31	126	146	54	32
25....	24	52	....	....	....	....	....	31	124	172	38	31
26....	27	55	....	....	....	....	....	38	118	192	38	31
27....	29	56	....	....	....	....	....	40	115	127	39	37
28....	24	50	....	....	....	....	....	69	113	88	38	37
29....	23	52	....	....	....	....	....	79	112	67	38	33
30....	23	44	....	....	....	....	....	82	114	59	36	31
31....	25	....	....	....	....	....	....	118	....	43	31	....
Total	640	891	....	....	....	....	....	4172	4493	2009	1837	1198
Mean..	20.6	29.7	....	....	....	....	....	135	150	64.8	59.3	39.9
Max...	29	56	....	....	....	....	....	289	273	243	161	227
Min...	13	7	....	....	....	....	....	83	59	36	31	7
Acre-ft.	1270	1770	....	....	....	....	....	8300	8930	3980	3650	2370

Discharge of Tarryall Creek Near Lake George for Year Ending Sept. 30, 1934.
Drainage Area 460 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	13	17	....	....	....	31	15	111	12	25	24
2....	12	14	19	....	....	....	30	15	88	10	20	20
3....	14	14	20	....	....	....	29	15	45	8	15	17
4....	11	11	....	....	....	....	29	18	45	7	16	16
5....	19	20	....	....	....	....	28	23	51	6	16	15
6....	22	20	....	....	....	....	26	47	41	5	17	14
7....	19	19	....	....	....	....	25	54	37	4	18	14
8....	14	17	....	....	....	....	25	40	33	4	22	14
9....	15	23	....	....	....	....	30	34	35	4	16	15
10....	16	20	....	....	....	....	61	22	32	4	18	14
11....	13	19	....	....	....	....	88	18	29	5	51	16
12....	14	20	....	....	....	....	49	21	22	4	40	16
13....	19	22	....	....	....	....	43	23	17	3	32	14
14....	25	17	....	....	....	....	38	25	15	5	33	13
15....	23	19	....	....	....	....	35	38	16	4	36	14
16....	25	20	....	....	....	....	32	42	16	4	28	12
17....	30	20	....	....	....	....	29	36	16	5	25	11
18....	22	18	....	....	....	....	24	29	16	8	24	11
19....	18	19	....	....	....	....	24	25	16	17	25	10
20....	19	20	....	....	....	....	18	17	16	12	26	9
21....	15	17	....	....	....	....	18	15	15	13	28	11
22....	16	22	....	....	....	....	18	22	14	10	30	10
23....	16	17	....	....	....	....	19	45	14	15	32	12
24....	16	16	....	....	....	....	24	87	14	19	34	14
25....	14	18	....	....	....	....	24	86	15	25	26	12
26....	13	17	....	....	....	....	22	86	14	29	22	14
27....	14	17	....	....	....	....	31	19	79	13	35	26
28....	14	17	....	....	....	....	36	19	72	12	34	27
29....	14	16	....	....	....	....	37	19	45	11	26	26
30....	14	20	....	....	....	....	37	16	54	12	24	20
31....	13	....	....	....	....	....	34	....	106	....	23	21
Total	519	542	....	....	....	....	892	1254	831	384	795	416
Mean..	16.7	18.1	....	....	....	....	29.7	40.5	27.7	12.4	25.6	13.9
Max...	30	23	....	....	....	....	88	106	111	35	51	24
Min...	10	11	....	....	....	....	16	15	11	3	15	9
Acre-ft.	1030	1080	....	....	....	....	1770	2490	1650	762	1570	827

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Goose Creek at Lake Cheesman for Year Ending Sept. 30, 1933.
Drainage Area 86 Square Miles. Altitude 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	....	....	....	....	....	....	....	331	50	51	20
2....	....	....	....	....	....	....	....	....	329	47	40	19
3....	....	....	....	....	....	....	....	....	315	55	63	19
4....	....	....	....	....	....	....	....	....	260	63	42	18
5....	....	11	....	....	....	....	....	....	251	58	40	18
6....	....	....	....	....	....	....	....	....	219	72	43	18
7....	....	....	....	....	....	....	....	....	191	68	39	17
8....	14	....	....	....	....	....	....	....	153	70	44	16
9....	....	....	....	....	....	....	....	....	143	53	35	22
10....	....	....	....	....	....	....	....	....	138	58	38	96
11....	....	....	....	....	....	....	....	....	132	60	32	97
12....	....	....	....	....	....	....	....	....	135	66	30	71
13....	....	....	....	....	....	....	....	....	158	53	27	64
14....	....	....	....	....	....	....	....	....	138	47	26	66
15....	13	....	....	....	....	....	....	....	115	49	27	54
16....	....	....	....	....	....	....	....	....	104	46	26	42
17....	....	....	....	....	....	....	....	....	101	66	28	38
18....	....	....	....	....	....	....	....	....	94	50	26	36
19....	....	....	....	....	....	....	....	....	99	44	28	33
20....	....	....	....	....	....	....	....	220	103	47	26	31
21....	....	....	....	....	....	....	....	272	92	49	24	30
22....	15	....	....	....	....	....	....	323	106	41	25	30
23....	15	....	....	....	....	....	....	325	94	38	22	28
24....	16	....	....	....	....	....	....	296	83	37	21	28
25....	....	....	....	....	....	....	....	242	78	33	20	26
26....	....	....	....	....	....	....	....	222	70	32	20	25
27....	....	....	....	....	....	....	....	257	66	30	31	25
28....	....	....	....	....	....	....	....	277	64	28	34	24
29....	18	....	....	....	....	....	....	310	60	26	27	24
30....	....	....	....	....	....	....	....	321	56	26	23	24
31....	....	....	....	....	....	....	....	33	....	33	21	....
Total	....	....	....	....	....	....	....	....	4278	1495	979	1049
Mean..	14.9	....	....	....	....	....	....	159	143	48.2	31.6	35.0
Max...	....	....	....	....	....	....	....	....	331	72	63	97
Min...	....	....	....	....	....	....	....	....	56	26	20	16
Acre-ft.	916	....	....	....	....	....	....	9780	8510	2960	1940	2080

Discharge of Goose Creek at Lake Cheesman for Year Ending Sept. 30, 1934.
Drainage Area, 86 Square Miles. Altitude, 6,835 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	17	....	....	....	....	....	31	39	16	14	13
2....	22	16	....	....	....	....	....	31	34	15	13	13
3....	22	16	....	....	....	....	....	33	34	14	12	13
4....	22	19	....	....	....	....	....	30	38	14	12	12
5....	22	20	....	....	....	....	....	40	34	16	11	11
6....	21	20	....	....	....	....	....	80	29	14	31	11
7....	21	20	....	....	....	....	....	56	26	13	28	11
8....	21	20	....	....	....	....	....	44	25	13	22	12
9....	20	20	....	....	....	....	....	42	24	14	21	13
10....	20	20	....	....	....	....	....	42	23	14	23	13
11....	20	....	....	....	....	....	30	44	22	14	19	11
12....	20	....	....	....	....	....	58	42	22	14	20	10
13....	19	....	....	....	....	....	61	54	21	12	17	10
14....	19	....	....	....	....	....	52	53	21	11	16	10
15....	19	....	....	....	....	....	46	54	20	11	16	10
16....	19	....	....	....	....	....	47	46	21	11	18	11
17....	18	....	....	....	....	....	36	44	23	11	17	10
18....	18	....	....	....	....	....	39	42	22	12	15	10
19....	18	....	....	....	....	....	45	40	20	13	19	10
20....	18	....	....	....	....	....	46	40	18	11	21	11
21....	18	....	....	....	....	....	45	39	18	10	17	14
22....	17	....	....	....	....	....	51	46	16	11	14	13
23....	18	....	....	....	....	....	50	41	16	16	14	12
24....	17	....	....	....	....	....	45	40	16	19	13	13
25....	17	....	....	....	....	....	50	46	22	19	13	12
26....	17	....	....	....	....	....	55	54	19	25	16	12
27....	17	....	....	....	....	....	32	48	16	21	15	12
28....	17	....	....	....	....	....	41	44	15	20	15	12
29....	16	....	....	....	....	....	38	46	15	14	16	11
30....	16	....	....	....	....	....	35	39	16	14	16	11
31....	16	....	....	....	....	....	....	39	....	14	14	....
Total	587	....	....	....	....	....	....	1370	685	446	528	347
Mean..	18.9	18.8	....	....	....	....	39	44.2	22.8	14.4	17.0	11.6
Max...	22	....	....	....	....	....	....	80	39	25	31	14
Min...	16	....	....	....	....	....	....	30	15	10	11	10
Acre-ft.	1160	....	....	....	....	....	2320	2720	1360	885	1050	690

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Bear Creek at Idledale for Year Ending Sept. 30, 1933.
Drainage Area, 111 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	19	11	....	....	....	20	121	313	82	49	33
2....	21	21	11	....	....	....	18	150	300	77	42	35
3....	18	19	9	....	....	....	18	158	255	114	57	36
4....	20	19	9	....	....	....	21	150	279	117	56	37
5....	20	18	7	....	....	....	22	155	279	115	46	35
6....	19	18	7	....	....	....	19	187	295	115	50	37
7....	19	17	7	....	....	....	18	163	267	600	47	37
8....	21	16	....	....	....	....	12	187	187	250	52	36
9....	20	16	....	....	....	....	10	187	193	200	48	52
10....	19	17	....	....	....	....	10	184	227	125	48	91
11....	22	17	....	....	....	....	8	187	217	100	45	84
12....	22	52	....	....	....	....	8	172	199	90	41	75
13....	22	36	....	....	....	....	9	158	187	88	38	74
14....	22	32	....	....	....	....	10	155	175	87	37	79
15....	21	32	....	....	4	3	6	150	158	85	36	72
16....	19	35	....	....	....	4	6	169	145	82	36	52
17....	19	33	....	....	....	3	6	227	150	75	36	62
18....	21	33	....	....	....	5	6	291	135	66	38	59
19....	22	29	....	....	....	3	6	380	124	60	39	59
20....	18	27	8	....	....	3	8	412	126	61	35	59
21....	17	27	....	....	....	3	12	396	128	63	33	59
22....	20	28	9	....	....	3	12	406	135	60	32	57
23....	22	28	....	4	....	3	16	365	121	58	32	48
24....	19	13	....	....	....	3	18	326	117	57	32	53
25....	18	13	....	....	....	3	20	263	119	52	30	52
26....	22	13	....	....	....	3	22	248	112	51	32	54
27....	21	12	....	....	....	3	36	259	102	49	43	53
28....	22	11	....	....	....	3	48	259	99	45	38	50
29....	22	11	....	....	....	8	95	244	93	39	35	49
30....	18	12	....	....	....	10	114	259	89	36	33	47
31....	17	....	....	....	....	13	....	287	....	40	33	....
Total	625	674	....	....	....	....	634	7255	5326	3139	1249	1626
Mean.	20.2	22.5	8	6	4	4	21.1	234	178	101	40.3	54.2
Max..	22	52	....	....	....	....	114	412	313	600	57	91
Min...	17	11	....	....	....	....	6	121	89	36	30	33
Acre-ft.	1240	1340	492	369	222	246	1260	14400	10600	6210	2480	3230

Discharge of Bear Creek at Idledale for Year Ending Sept. 30, 1934.
Drainage Area, 111 Square Miles. Altitude, 6,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	43	23	20	14	9	14	18	48	58	30	18	14
2....	44	25	22	14	....	16	18	49	58	23	17	14
3....	43	25	19	13	....	15	22	92	58	21	17	14
4....	45	26	17	13	....	15	18	96	51	22	16	14
5....	43	17	14	16	....	16	19	100	48	36	19	14
6....	43	23	17	22	....	17	18	107	44	26	24	14
7....	42	30	29	15	....	14	22	107	40	23	20	14
8....	40	28	26	14	....	16	28	104	36	20	18	14
9....	40	30	20	14	....	14	41	102	37	20	274	14
10....	39	26	21	14	....	16	44	102	37	21	27	14
11....	37	26	20	....	....	15	52	98	33	22	14	14
12....	38	24	20	....	....	16	52	98	34	18	14	14
13....	36	23	22	....	....	15	51	117	34	17	14	13
14....	36	22	23	....	....	14	49	96	33	16	14	13
15....	36	21	21	....	....	16	52	92	45	16	14	13
16....	34	22	23	....	....	18	49	84	59	16	14	13
17....	32	24	26	....	....	19	44	83	52	14	14	12
18....	32	22	28	....	....	15	41	77	41	14	14	14
19....	33	20	22	....	....	18	40	77	36	14	14	15
20....	31	22	19	....	....	18	40	76	32	13	14	18
21....	23	20	19	....	....	18	41	71	39	14	14	16
22....	22	22	19	....	....	18	44	70	32	16	14	20
23....	23	22	18	....	....	18	46	69	30	25	14	17
24....	25	20	18	....	....	15	49	66	30	49	14	10
25....	26	22	18	....	....	17	53	64	31	36	14	8
26....	26	18	18	....	19	19	55	64	27	36	14	14
27....	26	22	19	....	18	16	49	63	23	24	14	8
28....	26	19	18	....	14	17	47	59	22	22	14	12
29....	27	18	15	....	....	18	46	58	23	21	14	14
30....	26	20	15	....	....	19	46	58	24	19	14	14
31....	22	....	14	....	....	18	....	58	....	19	14	....
Total	1039	682	620	....	....	510	1194	2505	1147	683	744	412
Mean.	33.5	22.7	20	13.0	15.0	16.5	39.8	80.8	38.2	22.0	24	13.7
Max..	45	30	29	....	....	19	55	117	59	49	274	20
Min...	22	17	14	....	....	14	18	48	22	13	14	8
Acre-ft.	2060	1350	1230	799	833	1010	2370	4970	2270	1350	1480	815

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Bear Creek at Mouth for Year Ending Sept. 30, 1933.
Drainage Area, 259 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	12	11	....	....	5	8	239	112	19	27	10
2....	5	13	11	....	....	....	9	308	173	19	27	9
3....	5	12	11	....	....	....	9	232	127	18	30	9
4....	12	12	12	....	....	....	10	318	134	18	43	9
5....	14	12	12	....	....	....	10	201	182	18	19	10
6....	13	12	11	....	....	....	8	283	225	18	15	10
7....	11	12	....	....	....	....	6	194	221	750	16	12
8....	11	12	....	....	....	....	7	197	104	315	14	12
9....	12	12	....	....	....	....	7	194	94	232	14	219
10....	11	12	....	....	....	....	8	190	121	241	9	270
11....	8	12	....	....	....	....	8	185	129	140	8	90
12....	9	13	....	....	....	5	8	180	110	117	10	39
13....	8	12	....	....	....	5	7	175	114	64	9	26
14....	8	11	....	....	....	5	7	170	98	50	9	23
15....	8	11	....	....	11	6	6	165	80	40	10	16
16....	7	12	....	....	....	6	5	161	58	30	10	16
17....	8	12	....	....	....	6	4	262	38	20	12	16
18....	7	11	....	....	....	12	4	515	32	26	12	13
19....	8	12	....	....	....	9	4	704	28	20	12	12
20....	9	11	....	11	....	9	22	580	29	25	12	13
21....	9	11	....	....	....	10	16	343	24	20	12	12
22....	8	11	10	....	....	10	20	304	23	22	11	10
23....	8	12	....	....	....	10	31	258	22	34	14	10
24....	11	12	....	....	....	10	42	220	22	26	12	10
25....	13	11	....	....	....	8	42	180	21	24	10	11
26....	14	12	....	....	....	8	35	160	21	16	12	13
27....	14	11	....	....	....	8	35	140	19	12	13	14
28....	12	11	....	....	....	8	98	120	16	14	14	12
29....	13	11	....	....	....	8	333	105	16	20	14	11
30....	12	11	....	....	....	9	255	98	19	19	11	14
31....	12	....	....	....	....	9	....	96	....	14	12	....
Total	305	351	....	....	....	....	1064	7477	2412	2401	453	951
Mean.	9.84	11.7	11.0	11.0	11.0	6.97	35.5	241	80.4	77.4	14.6	31.7
Max..	14	13	....	....	....	12	333	704	225	....	43	....
Min...	5	11	....	....	....	....	4	96	16	....	8	9
Acre-ft.	605	696	676	676	611	429	2110	14800	4780	4759	898	1890

Discharge of Bear Creek at Mouth for Year Ending Sept. 30, 1934.
Drainage Area, 259 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	14	19	13	9	10	9	5	7	6	4	5
2....	16	11	21	14	9	10	8	16	6	5	4	5
3....	17	11	18	16	9	10	9	56	11	4	5	5
4....	16	11	17	14	10	9	11	16	11	7	5	5
5....	14	11	16	13	9	9	10	12	8	7	5	5
6....	9	10	18	12	9	9	9	11	7	4	4	5
7....	8	10	18	14	11	9	9	14	7	4	4	5
8....	7	11	15	14	11	9	8	14	5	4	4	5
9....	6	11	14	13	11	9	7	14	5	4	88	7
10....	7	11	14	13	11	9	8	13	7	4	28	7
11....	10	11	14	12	13	8	7	11	5	4	22	6
12....	8	12	14	14	11	8	6	9	6	3	16	7
13....	7	14	14	12	11	8	5	9	5	3	11	5
14....	9	13	14	13	11	9	8	11	5	4	7	4
15....	12	16	13	12	11	8	8	8	5	4	8	5
16....	8	16	13	13	11	8	7	7	7	3	6	5
17....	9	17	14	13	13	9	5	7	7	4	8	4
18....	11	16	14	12	14	8	5	6	7	5	7	4
19....	9	16	14	12	12	8	7	10	6	7	5	4
20....	9	16	15	12	12	8	10	8	5	5	7	4
21....	10	15	14	14	13	8	6	11	4	5	7	4
22....	11	15	13	14	12	8	5	10	4	5	7	4
23....	11	14	13	13	14	9	5	11	3	4	7	4
24....	11	14	13	14	12	9	7	13	3	4	9	4
25....	11	14	13	14	10	8	7	5	3	8	13	4
26....	10	16	14	12	13	9	9	8	5	5	12	4
27....	10	16	14	12	13	9	13	8	5	9	8	4
28....	10	16	13	11	11	9	7	9	6	6	6	4
29....	11	16	13	9	....	9	8	8	5	4	7	4
30....	10	17	13	10	....	9	7	19	4	4	8	4
31....	9	....	13	9	....	9	....	26	....	4	5	....
Total	322	411	455	393	316	271	230	385	174	149	337	142
Mean.	10.4	13.7	14.7	12.7	11.3	8.7	7.7	12.4	5.8	4.8	10.9	4.7
Max..	17	17	21	16	14	10	13	56	11	9	88	7
Min...	6	10	13	9	9	8	5	5	3	3	4	4
Acre-ft.	640	815	904	781	628	535	458	762	345	295	670	280

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Clear Creek Near Golden for Year Ending Sept. 30, 1933.
Drainage Area, 392 Square Miles. Altitude, 5,620 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	59	43	63	....	....	....	41	150	1100	1120	343	85
2.....	49	38	57	....	....	....	27	247	1250	1100	380	80
3.....	43	38	....	....	....	....	21	164	1130	1110	392	78
4.....	59	41	....	....	....	....	24	164	1140	1070	315	76
5.....	55	39	....	....	....	....	21	160	1310	1060	315	60
6.....	55	37	....	....	....	....	21	194	1390	1040	356	67
7.....	54	38	....	....	....	....	24	174	1410	1190	322	78
8.....	57	42	....	....	....	....	23	178	1220	1150	343	72
9.....	47	69	....	....	....	....	30	174	1240	1150	329	757
10.....	62	65	....	....	....	....	27	178	1370	1380	274	552
11.....	80	49	....	....	....	....	23	181	1490	996	236	210
12.....	83	44	....	....	....	....	18	160	1530	612	230	200
13.....	74	90	....	....	....	....	19	146	1550	577	221	198
14.....	69	76	....	....	....	....	17	136	1560	570	194	176
15.....	65	65	....	....	30	36	22	146	1500	567	212	164
16.....	62	60	....	....	....	30	24	153	1470	542	230	145
17.....	105	69	....	....	....	26	19	203	1470	518	216	135
18.....	156	67	....	....	....	28	21	500	1570	496	207	135
19.....	78	63	....	....	....	26	39	487	1470	479	230	138
20.....	62	59	....	....	....	27	41	605	1560	486	216	135
21.....	69	59	....	....	....	29	35	678	1520	437	203	132
22.....	55	62	42	....	....	35	29	742	1440	453	185	128
23.....	49	54	....	....	....	26	63	686	1380	416	174	124
24.....	52	57	....	28	....	39	67	631	1340	416	164	119
25.....	38	60	....	....	....	28	63	577	1300	416	143	114
26.....	52	60	....	....	....	32	74	592	1270	386	143	118
27.....	51	63	....	....	....	32	87	666	1220	336	170	116
28.....	49	62	....	....	....	38	116	746	1180	287	146	106
29.....	48	54	....	....	....	41	146	770	1180	269	139	107
30.....	45	57	....	....	....	43	133	842	1140	269	110	122
31.....	35	....	....	....	....	47	....	960	....	315	92	....
Total	1917	1680	....	....	....	....	1315	12390	40700	21213	7230	4727
Mean.	61.8	56.0	48	31	30	32	43.8	400	1360	684	233	158
Max...	156	90	....	....	....	....	146	960	1570	1380	392	757
Min...	35	37	....	....	....	....	17	136	1100	269	92	60
Acre-ft.	3800	3330	2950	1910	1670	1970	2610	24600	80900	42100	14300	9400

Discharge of Clear Creek Near Golden for Year Ending Sept. 30, 1934.
Drainage Area, 392 Square Miles. Altitude, 5,620 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	122	86	59	62	59	41	34	236	747	312	145	91
2.....	122	86	68	67	64	56	29	244	706	278	142	104
3.....	128	67	54	48	47	53	21	311	683	254	156	118
4.....	136	73	56	51	53	46	32	264	602	270	150	111
5.....	132	72	53	43	40	48	35	280	574	290	218	104
6.....	122	60	54	43	46	51	25	374	588	282	181	104
7.....	122	70	68	43	51	59	42	430	595	262	181	97
8.....	122	70	54	43	51	46	48	472	517	254	173	97
9.....	108	65	57	43	53	37	58	525	517	254	250	102
10.....	100	64	59	43	62	40	72	576	510	243	208	102
11.....	95	62	56	40	59	50	86	724	486	236	187	97
12.....	99	64	56	40	57	50	90	966	468	222	173	97
13.....	91	60	56	35	68	51	90	1050	462	211	164	84
14.....	97	60	57	40	57	50	100	875	462	194	164	82
15.....	97	62	54	78	53	51	100	820	498	184	167	82
16.....	97	62	54	67	62	60	110	801	474	181	167	78
17.....	99	56	54	68	62	52	110	820	433	176	153	78
18.....	100	53	62	64	62	37	110	886	396	170	148	78
19.....	97	51	64	64	57	45	120	1010	391	162	148	78
20.....	95	50	75	97	68	42	120	1090	396	156	167	78
21.....	99	47	54	86	81	40	130	1140	433	170	164	82
22.....	95	46	53	78	75	43	146	1030	391	184	162	82
23.....	83	46	53	70	76	40	152	1010	376	208	148	82
24.....	90	46	51	68	62	34	164	1010	362	218	142	80
25.....	90	57	51	78	50	35	194	1030	362	222	134	82
26.....	90	57	54	111	53	32	211	1100	348	258	126	86
27.....	86	57	56	104	76	32	194	1030	338	222	131	82
28.....	86	57	47	68	60	32	177	1000	334	201	153	80
29.....	88	60	40	67	....	34	180	1100	320	184	134	80
30.....	86	62	44	68	....	37	201	1220	325	176	116	78
31.....	86	....	54	57	....	37	....	938	....	156	102	....
Total	3160	1828	1727	1934	1664	1361	3181	24362	14094	6790	4954	2676
Mean.	102	60.9	55.7	62.4	59.4	43.9	106	786	470	219	160	89.2
Max...	136	86	75	111	81	60	211	1220	747	312	250	118
Min...	83	46	40	35	40	32	21	236	320	156	102	78
Acre-ft.	6270	3620	3420	3840	3300	2700	6310	48300	28000	13500	9840	5310

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Clear Creek Near Mouth for Year Ending Sept. 30, 1933.
Drainage Area, 600 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	5	27	....	....	....	8	53	354	46	44	11
2....	1	5	15	....	....	....	6	54	533	73	33	11
3....	1	5	16	....	....	....	5	62	512	88	71	10
4....	1	4	16	....	....	....	6	176	438	95	78	9
5....	1	4	18	....	....	....	7	87	512	49	29	9
6....	1	4	19	....	....	....	6	66	528	30	23	10
7....	1	3	22	....	....	....	5	54	549	306	20	9
8....	1	2	....	....	....	....	4	42	402	363	16	5
9....	1	2	....	....	....	....	3	35	306	245	19	8
10....	1	5	....	....	....	....	6	38	350	212	15	1050
11....	3	9	....	....	....	....	5	72	565	560	14	716
12....	3	15	....	....	....	....	5	82	680	203	13	486
13....	3	15	....	....	....	....	5	47	729	106	12	206
14....	3	13	....	....	....	....	5	36	716	31	12	54
15....	3	12	....	....	....	....	5	28	680	28	12	28
16....	3	12	....	....	57	....	3	25	621	28	11	23
17....	3	15	....	....	....	25	3	28	570	26	12	18
18....	4	14	....	....	....	40	2	36	598	23	12	16
19....	4	15	....	....	....	44	2	51	502	24	14	15
20....	3	14	....	....	....	38	6	281	609	20	15	15
21....	4	14	67	....	....	36	18	346	581	31	13	15
22....	5	12	....	....	....	31	36	406	424	17	12	16
23....	5	12	....	....	....	23	62	476	318	27	11	16
24....	5	11	....	67	....	22	64	543	256	23	11	16
25....	5	10	....	....	....	22	62	346	216	13	12	15
26....	5	10	....	....	....	20	54	260	138	13	14	15
27....	5	10	....	....	....	17	43	281	97	18	13	15
28....	5	10	....	....	....	15	34	350	56	18	14	15
29....	5	16	....	....	....	13	59	322	48	15	12	15
30....	5	16	....	....	....	12	72	299	52	15	12	15
31....	5	....	....	....	....	10	....	318	....	18	11	....
Total	96	294	....	....	....	....	601	5300	12940	2764	610	2862
Mean.	3.10	9.80	45	65	50	25	20.0	171	431	89.2	19.7	95.4
Max...	5	16	....	....	....	....	72	543	729	560	78	1050
Min...	1	2	....	....	....	....	2	25	48	13	11	5
Acre-ft.	191	583	2770	4000	2780	1540	1190	10500	25600	5480	1210	5680

Discharge of Clear Creek Near Mouth for Year Ending Sept. 30, 1934.
Drainage Area, 600 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	8	15	45	52	43	9	17	270	29	19	....
2....	11	8	65	44	77	25	8	18	113	18	17	....
3....	11	7	67	48	79	24	15	92	111	18	16	....
4....	11	10	67	48	82	23	16	152	65	24	13	....
5....	13	19	65	44	70	21	16	74	23	39	31	....
6....	12	25	50	34	59	18	12	77	65	28	24	....
7....	11	43	77	28	68	16	10	118	335	23	18	....
8....	10	33	74	24	72	14	9	169	198	22	17	....
9....	10	24	60	25	59	12	8	214	125	21	24	....
10....	9	8	65	40	52	12	7	286	138	19	28	....
11....	9	7	65	44	48	12	8	278	128	20	21	....
12....	10	6	65	40	48	11	7	270	97	20	16	....
13....	11	7	56	35	48	11	6	339	88	20	13	....
14....	10	6	62	33	46	10	7	358	84	18	11	....
15....	9	6	58	52	46	10	6	235	195	17	9	....
16....	8	5	50	54	45	8	34	155	158	17	8	....
17....	10	4	40	46	46	9	21	118	118	16	8	....
18....	11	8	36	45	62	13	15	232	45	17	7	....
19....	10	13	58	45	39	15	12	344	24	17	7	....
20....	10	16	68	44	30	14	11	299	18	17	7	....
21....	10	15	54	45	23	14	13	312	70	16	7	....
22....	8	11	56	54	24	13	13	418	54	14	7	....
23....	9	8	53	60	34	13	14	466	27	13	7	....
24....	12	7	50	64	30	12	18	494	18	12	6	....
25....	12	7	39	60	24	11	18	552	17	12	6	....
26....	11	6	42	58	75	10	42	552	16	12	6	....
27....	10	6	43	56	77	10	62	353	16	35	6	....
28....	7	6	44	58	59	10	23	204	19	29	6	....
29....	7	6	45	53	....	10	18	274	22	25	19	....
30....	7	6	46	56	....	10	18	460	21	23	18	....
31....	6	....	45	52	....	10	....	618	....	21	17	....
Total	307	341	1680	1434	1474	444	476	8548	2678	632	419	....
Mean.	9.9	11.4	54.2	46.3	52.6	14.3	15.9	276	89.3	20.4	13.5	10
Max...	13	43	77	64	82	43	62	618	335	39	31	....
Min...	6	4	15	24	23	8	6	17	16	12	6	....
Acre-ft.	609	678	3330	2850	2920	879	946	17000	5310	1250	830	595

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Fall River at Mouth Near Idaho Springs for Year Ending Sept. 30, 1933.
Drainage Area, 23.6 Square Miles. Altitude, 7,720 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	3	....	....	....	....	....	10	113	52	28	15
2....	5	4	....	....	....	....	....	10	111	52	24	15
3....	5	4	....	....	....	....	....	10	99	53	26	14
4....	6	4	....	....	....	....	....	9	103	52	22	14
5....	5	6	....	....	....	....	....	9	121	52	21	14
6....	5	4	....	....	....	....	....	11	105	63	27	13
7....	5	3	....	....	....	....	....	11	87	87	23	14
8....	4	10	....	....	....	....	....	10	72	66	26	19
9....	4	6	....	....	....	....	....	9	74	57	24	23
0....	4	7	....	....	....	....	....	10	79	56	20	20
1....	5	3	....	....	....	....	....	10	89	56	20	20
2....	5	3	....	....	....	....	....	12	97	55	17	19
3....	5	3	....	....	....	....	....	12	93	55	15	18
4....	5	3	....	....	....	....	....	16	89	53	15	16
5....	5	....	....	....	....	....	....	18	93	49	17	16
6....	4	....	....	....	2	....	....	22	87	38	33	14
7....	4	....	....	2	....	....	....	28	89	38	33	14
8....	4	....	....	....	....	....	....	29	85	37	31	12
9....	4	....	....	....	....	....	....	40	99	37	30	11
0....	4	....	2	....	....	....	....	53	105	35	30	11
1....	6	....	....	....	....	4	....	52	99	35	27	9
2....	6	....	....	....	....	....	....	64	87	33	24	10
3....	4	....	....	....	....	....	....	54	82	32	23	9
4....	4	....	....	....	....	....	....	44	80	32	20	8
5....	6	....	....	....	....	....	....	39	74	30	19	9
6....	6	....	....	....	....	....	....	52	71	28	17	9
7....	6	....	....	....	....	....	....	74	66	26	15	9
8....	5	....	....	....	....	....	....	79	60	23	15	9
9....	4	....	....	....	....	....	....	79	64	24	20	9
0....	4	....	....	....	....	....	....	83	53	24	16	8
1....	4	....	....	....	....	....	....	82	....	26	15	....
Total	149	....	....	....	....	....	....	1041	2626	1356	693	401
Mean.	4.81	4.6	2	2	2	3.7	7	33.6	87.5	43.7	22.4	13.4
Max...	6	....	....	....	....	....	....	83	121	87	33	23
Min...	4	....	....	....	....	....	....	9	53	23	15	8
acre-ft.	296	274	123	123	111	228	417	2070	5210	2690	1380	797

Discharge of Fall River at Mouth Near Idaho Springs for Year Ending Sept. 30, 1934.
Drainage Area 23.6 Square Miles. Altitude 7,720 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	2	....	....	....	....	....	....	62	34	8	6
2....	7	2	....	....	....	....	....	....	52	34	7	6
3....	9	3	....	....	....	....	....	....	47	37	8	6
4....	9	3	....	....	....	....	....	....	43	37	8	6
5....	8	3	....	....	....	....	....	....	50	37	9	6
6....	7	....	....	....	....	....	....	....	60	39	9	6
7....	7	....	....	....	....	....	....	....	58	36	10	6
8....	6	....	....	....	....	....	....	....	40	34	9	6
9....	5	....	....	....	....	....	....	....	38	33	9	7
0....	3	....	....	....	....	....	....	....	39	30	8	7
1....	3	....	....	....	....	....	....	76	39	29	9	7
2....	3	....	....	....	....	....	....	70	39	25	8	7
3....	4	....	....	....	....	....	....	70	35	18	9	6
4....	5	....	....	....	....	....	....	70	32	14	10	6
5....	6	....	....	....	....	....	....	70	35	14	10	6
6....	5	....	....	....	....	....	....	70	35	14	11	7
7....	5	....	....	....	....	....	....	70	31	13	12	7
8....	4	....	....	....	....	....	....	65	35	12	10	7
9....	4	....	....	....	....	....	....	72	45	11	10	6
0....	3	3	....	....	....	....	....	74	43	10	10	8
1....	3	....	....	....	....	....	....	72	52	10	12	7
2....	4	....	....	....	....	....	....	68	47	10	13	6
3....	5	....	....	....	....	....	....	65	42	10	10	7
4....	4	....	....	....	....	....	....	67	40	10	6	6
5....	3	....	....	....	....	....	....	76	40	10	6	7
6....	3	....	....	....	....	....	....	67	39	10	6	8
7....	3	....	....	....	....	....	....	53	39	10	6	7
8....	3	....	....	....	....	....	....	47	38	9	6	7
9....	3	....	....	....	....	....	....	60	36	8	6	7
0....	3	....	4	....	....	....	....	83	36	8	6	7
1....	2	....	....	2	....	....	....	89	....	7	6	....
Total	146	....	....	....	....	....	....	....	1267	613	267	198
Mean.	4.71	....	....	....	....	....	....	....	42.2	19.8	8.61	6.60
Max...	9	3	3	2	2	4	6	65	62	39	13	8
Min...	2	....	....	....	....	....	....	....	31	7	6	6
acre-ft.	290	179	184	123	111	246	357	4000	2510	1220	529	393

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Boulder Creek Near Eldorado Springs for Year Ending Sept. 30, 1933.
Drainage Area, 114 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	8						184	551	177	45	15
2....	7	8						190	561	187	51	14
3....	7	8						197	466	190	51	12
4....	8	8						193	531	193	39	12
5....	8	12						181	566	174	40	11
6....	6	13					4	233	576	203	42	12
7....	7	8						197	536	226	36	11
8....	8	8						190	438	248	37	11
9....	6	8						174	415	200	31	45
10....	3	10						162	438	159	28	81
11....	3	6						147	471	150	28	46
12....	6	3						133	501	128	28	50
13....	1							147	461	141	25	51
14....	1							150	466	122	22	48
15....	0							162	410	105	23	38
16....	2							17	226	374	93	23
17....	9							21	334	433	85	21
18....	15							26	410	456	85	20
19....	11							31	456	410	77	29
20....	6					13		11	516	384	60	45
21....	10		3					18	511	348	52	28
22....	7	5						34	516	379	52	22
23....	6				2			17	486	316	58	26
24....	6							33	438	296	58	21
25....	4			2				42	379	276	55	18
26....	8							55	384	264	54	20
27....	15							91	433	284	42	24
28....	12							125	466	244	38	25
29....	15							181	461	233	69	41
30....	16							159	481	206	47	22
31....	8								531		42	20
Total	229							9668	12290	3570	931	812
Mean.	7.39	6.0	3.16	2.0	2.0	5.94	32.9	312	410	115	30.0	27.1
Max..	16							531	576	248	51	81
Min...	0							133	206	38	18	11
Acre-ft.	454	357	194	123	111	365	1960	19200	24400	7070	1840	1610

Discharge of South Boulder Creek Near Eldorado Springs for Year Ending Sept. 30, 1934.
Drainage Area 114 Square Miles. Altitude 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	15					20	133	206	59	14	11
2....	16	8			8		24	138	191	52	14	9
3....	17	8					21	186	179	49	13	10
4....	21	9					21	190	170	49	13	11
5....	17	9					19	200	158	52	13	11
6....	16	8					17	215	149	47	14	10
7....	16						26	201	146	46	16	10
8....	15						36	198	134	39	16	9
9....	15						52	179	122	36	14	9
10....	15	8					48	162	119	34	18	9
11....	15	6					57	150	118	31	18	9
12....	13					14	58	149	115	28	16	9
13....	11					17	65	264	110	25	13	8
14....	15	6				15	63	260	110	25	12	8
15....	14	4				13	66	262	110	22	12	8
16....	12	4				20	60	251	105	20	12	8
17....	11					23	55	242	100	19	12	7
18....	12					22	58	242	100	18	12	7
19....	12					16	65	249	97	18	10	7
20....	11					15	69	240	96	17	10	7
21....	12					15	71	237	100	18	12	9
22....	11					15	81	228	96	20	11	10
23....	10					18	93	220	89	19	10	9
24....	9					25	102	224	83	22	10	9
25....	8	4		8		40	119	224	81	27	10	8
26....	7		4			35	133	224	78	22	9	9
27....	6					30	114	211	73	21	8	9
28....	6					25	112	206	67	19	12	10
29....	14					25	114	206	64	18	13	10
30....	15	4				20	125	220	60	14	12	8
31....	17					20		219		14	11	
Total	405						1964	6530	3426	900	390	268
Mean.	13.1	6.0	4.0	6.0	9.0	18.0	65.5	211	114	29.0	12.6	8.9
Max..	21						133	264	206	59	18	11
Min...	6						17	133	60	14	8	7
Acre-ft.	806	357	246	369	500	1110	3900	13000	6780	1780	775	530

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Boulder Creek Near Orodell for Year Ending Sept. 30, 1933.
Drainage Area, 105 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	18	12	8	1	6	9	76	225	280	82	33
2....	11	13	10	9	1	7	8	82	261	245	80	32
3....	7	18	8	8	1	8	8	91	258	248	87	32
4....	9	16	9	8	2	6	10	89	234	220	84	29
5....	7	14	9	27	2	6	7	94	251	245	87	35
6....	9	14	9	9	2	7	8	108	303	313	76	28
7....	9	18	6	7	5	6	6	96	313	306	70	30
8....	8	8	7	5	5	10	8	89	320	250	76	44
9....	8	15	7	7	4	9	6	86	326	240	84	72
10....	14	13	7	9	4	9	6	77	330	230	82	106
11....	11	15	7	9	4	8	9	72	367	200	76	110
12....	9	16	7	7	4	9	13	70	432	180	72	100
13....	8	16	7	7	3	9	10	72	450	170	70	96
14....	9	14	7	6	4	8	5	74	428	160	58	86
15....	8	10	7	5	4	6	8	80	406	170	53	76
16....	7	21	7	5	1	6	12	100	399	160	62	74
17....	9	16	7	4	1	5	12	150	406	140	57	91
18....	8	13	7	4	1	7	16	167	396	130	53	68
19....	9	13	7	5	1	5	17	220	424	119	54	45
20....	9	9	7	4	1	3	13	222	454	121	41	42
21....	15	12	7	6	1	4	27	206	439	115	36	45
22....	13	16	7	8	1	4	19	220	446	115	35	42
23....	13	12	16	6	1	2	31	209	428	108	36	40
24....	16	7	9	6	1	4	33	198	371	119	35	37
25....	15	9	11	6	3	8	20	180	350	94	33	36
26....	13	13	7	6	4	8	25	178	326	92	35	37
27....	15	11	11	4	5	8	36	193	313	82	40	40
28....	15	11	10	2	5	12	59	183	309	79	38	32
29....	15	11	10	1	....	16	72	198	299	82	35	36
30....	16	9	9	2	....	11	65	178	296	79	35	27
31....	13	....	11	2	....	8	....	204	....	86	34	....
Total	337	401	262	202	72	221	578	4262	10560	5178	1796	1601
Mean.	10.9	13.4	8.45	6.52	2.57	7.13	19.3	137	352	167	57.9	53.4
Max...	16	21	....	27	5	16	72	222	454	313	87	110
Min...	7	7	....	1	1	2	5	70	225	79	33	27
Acre-ft.	670	797	520	401	143	438	1150	8420	20900	10300	3560	3180

Discharge of Boulder Creek Near Orodell for Year Ending Sept. 30, 1934.
Drainage Area, 105 Square Miles. Altitude, 5,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	33	24	29	34	34	27	74	304	80	47	26
2....	21	28	29	36	34	30	37	79	240	79	46	23
3....	23	31	41	41	27	9	43	110	178	82	47	28
4....	26	34	30	50	17	2	27	115	155	80	45	25
5....	27	19	27	56	29	2	44	104	175	85	52	27
6....	27	28	28	26	33	2	42	115	168	86	37	25
7....	27	31	35	27	32	5	42	121	189	84	42	23
8....	27	32	39	32	31	2	36	133	185	84	42	17
9....	27	30	39	38	31	4	44	189	185	80	39	16
10....	28	29	36	38	27	11	53	192	175	78	40	16
11....	29	24	36	44	27	29	58	192	185	70	35	13
12....	29	17	37	49	33	26	63	182	161	69	31	13
13....	30	26	29	45	34	28	69	202	175	69	38	11
14....	32	27	32	25	33	33	74	185	168	69	36	12
15....	27	27	32	39	31	31	42	197	152	63	30	14
16....	27	26	33	44	30	33	53	216	172	63	27	17
17....	34	25	16	40	23	24	44	226	141	56	24	20
18....	28	24	33	39	16	23	44	253	136	56	27	24
19....	27	26	35	43	27	37	54	240	133	52	31	27
20....	27	27	37	36	33	41	54	278	136	55	34	31
21....	26	27	34	32	30	46	69	321	115	56	34	29
22....	14	24	36	43	13	50	61	313	98	52	32	24
23....	20	27	36	41	27	48	70	321	98	50	32	24
24....	26	25	24	40	23	60	69	285	82	54	33	22
25....	27	31	20	40	14	28	69	330	82	50	32	13
26....	30	14	36	38	25	56	82	285	78	56	27	8
27....	33	15	33	29	25	43	69	235	78	56	27	14
28....	30	14	33	15	28	53	80	221	80	55	28	10
29....	20	14	36	36	....	54	63	226	80	52	28	11
30....	24	16	36	36	....	53	65	252	82	47	29	10
31....	27	....	29	37	....	42	....	390	....	50	30	....
Total	813	751	1024	1164	767	939	1657	6583	4386	2018	1082	573
Mean.	26.2	25.0	33.0	37.5	27.4	30.3	55.2	212	146	65.1	34.9	19.1
Max...	34	34	59	56	34	60	82	390	304	86	52	31
Min...	13	14	16	15	13	2	27	74	78	47	24	8
Acre-ft.	1610	1490	2030	2310	1520	1860	3280	13000	8690	4000	2150	1140

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Boulder Creek at Mouth for Year Ending Sept. 30, 1933.
Drainage Area, 512 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	1	1	2	2	9	10	5	37	246	5	2	2
2.....	1	1	2	2	8	10	5	26	231	5	2	3
3.....	1	3	2	3	7	8	4	23	120	5	4	3
4.....	1	3	2	4	7	6	4	688	40	6	2	2
5.....	1	3	2	5	7	6	4	373	7	6	2	2
6.....	2	3	2	5	9	6	4	219	4	5	3	2
7.....	2	3	2	6	....	5	3	150	12	23	2	2
8.....	2	3	2	8	....	5	3	108	4	22	2	2
9.....	2	3	2	12	....	5	3	73	4	17	2	4
10.....	2	4	2	12	....	5	4	94	4	5	2	101
11.....	2	3	2	12	....	5	4	234	16	5	2	32
12.....	2	4	2	11	....	5	4	340	118	5	1	18
13.....	2	2	2	10	....	5	4	246	282	5	1	11
14.....	3	1	2	11	....	3	4	186	198	5	2	12
15.....	2	1	2	10	....	3	4	156	140	6	2	16
16.....	2	1	2	10	16	3	4	144	106	7	2	18
17.....	3	2	2	12	14	3	4	210	103	7	1	21
18.....	4	2	2	14	13	4	3	364	129	5	1	18
19.....	4	2	1	12	14	4	3	575	183	4	1	9
20.....	5	1	1	10	12	3	5	733	296	4	1	21
21.....	5	1	1	12	13	3	8	650	266	5	1	19
22.....	4	2	1	12	15	3	19	638	292	5	1	19
23.....	4	2	1	10	12	3	116	632	289	5	1	17
24.....	3	2	1	10	13	4	132	526	125	4	1	15
25.....	4	2	1	10	15	3	92	438	67	2	1	9
26.....	4	2	1	11	14	4	76	364	32	2	1	7
27.....	5	2	1	9	13	4	69	364	23	2	2	8
28.....	5	2	1	10	12	4	40	398	11	2	2	5
29.....	5	2	2	10	....	5	40	389	10	2	2	5
30.....	4	2	2	8	....	5	100	329	8	2	2	6
31.....	1	....	3	8	....	5	....	269	....	2	2	....
Total	88	65	53	281	....	147	770	9976	3366	185	53	409
Mean...	2.84	2.17	1.71	9.06	11.4	4.74	25.7	322	112	5.97	1.71	13.6
Max...	5	4	3	14	....	10	132	733	296	23	4	101
Min...	1	1	1	2	....	3	3	23	4	2	1	2
Acre-ft.	175	129	105	557	633	291	1530	19800	6660	367	105	809

Discharge of Boulder Creek at Mouth for Year Ending Sept. 30, 1934.
Drainage Area, 512 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	4	5	3	8	24	59	22	34	42	2	3	2
2.....	3	5	7	10	28	57	21	41	3	3	3	3
3.....	3	4	8	12	30	47	37	94	3	2	3	3
4.....	5	4	5	14	26	30	49	211	3	3	2	2
5.....	6	3	4	16	20	24	56	172	2	4	2	2
6.....	5	2	4	16	28	36	54	148	2	4	2	1
7.....	5	3	4	28	31	49	45	133	1	3	1	1
8.....	4	3	5	32	30	51	45	130	1	2	1	2
9.....	3	3	12	32	24	38	40	269	1	2	2	1
10.....	4	2	10	20	33	52	48	316	1	2	3	1
11.....	4	3	8	17	32	32	50	219	1	2	3	1
12.....	3	2	9	17	28	21	56	108	1	3	2	1
13.....	4	1	8	32	45	20	60	160	1	3	2	1
14.....	5	1	8	28	46	26	63	228	4	2	3	1
15.....	4	1	6	16	42	29	73	135	10	1	4	1
16.....	1	2	10	20	41	21	56	76	7	1	3	1
17.....	1	2	10	28	43	19	63	28	5	1	2	1
18.....	3	2	11	28	44	17	52	11	6	1	3	1
19.....	3	2	12	38	29	16	53	6	6	1	3	1
20.....	3	2	10	30	39	14	55	5	3	1	2	2
21.....	2	2	9	30	44	13	70	24	5	2	2	2
22.....	2	2	10	21	47	12	78	10	3	1	3	1
23.....	2	2	10	23	48	16	82	2	3	3	2	1
24.....	1	2	8	22	49	18	90	2	8	3	1	1
25.....	1	2	7	20	45	21	75	5	5	1	3	2
26.....	1	2	7	33	18	24	71	4	1	3	1	2
27.....	1	2	8	33	34	19	95	5	2	3	1	1
28.....	1	4	14	30	59	18	62	5	3	3	2	1
29.....	1	4	20	20	....	18	48	4	3	3	3	1
30.....	1	3	12	16	....	18	38	4	3	3	2	1
31.....	3	....	12	26	....	18	....	12	....	2	1	....
Total	89	76	273	716	1007	853	1707	2601	139	68	70	42
Mean...	2.9	2.5	8.8	23.1	36.0	27.5	56.9	83.9	4.6	2.2	2.3	1.4
Max...	6	5	20	38	59	59	95	316	42	4	4	3
Min...	1	1	3	8	18	12	21	2	1	1	1	1
Acre-ft.	178	149	541	1420	2000	1690	3390	5160	274	135	141	83

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Middle Boulder Creek at Nederland for Year Ending Sept. 30, 1933.
Drainage Area, 38 Square Miles. Altitude, 8,180 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	9	6	....	....	....	7	35	328	170	48	13
2....	10	9	7	....	....	....	8	34	328	158	46	13
3....	10	9	7	....	....	....	8	31	280	165	47	12
4....	11	8	6	....	....	....	8	30	315	155	43	12
5....	9	8	6	....	....	....	8	31	375	141	41	12
6....	11	8	6	....	....	....	6	33	356	187	40	16
7....	10	8	....	....	....	4	6	30	306	213	36	40
8....	9	6	....	....	....	4	7	30	240	213	38	33
9....	9	8	....	....	....	4	6	29	249	170	35	43
10....	8	8	....	....	....	4	6	29	304	153	32	71
11....	11	10	....	....	....	5	6	28	348	145	32	53
12....	11	9	....	....	....	6	6	26	385	147	28	59
13....	12	8	....	....	....	6	6	27	361	124	26	51
14....	11	8	....	....	....	5	6	29	359	107	25	47
15....	10	8	....	....	....	5	7	32	333	100	24	37
16....	10	8	....	....	....	5	8	41	345	95	25	30
17....	9	7	....	....	....	5	11	56	383	92	23	....
18....	9	8	....	....	....	5	13	75	393	88	22	....
19....	9	8	....	....	....	4	13	96	399	82	31	....
20....	11	8	....	....	....	4	10	115	399	76	30	....
21....	11	8	....	....	....	4	10	149	411	75	25	....
22....	19	7	....	....	....	4	15	180	321	67	22	....
23....	18	7	....	....	....	5	16	160	279	63	21	....
24....	17	8	....	....	....	4	10	138	245	59	19	18
25....	16	7	....	....	....	5	11	123	229	55	18	17
26....	17	7	....	....	....	6	11	152	221	51	20	21
27....	14	7	....	....	....	6	14	207	210	47	22	21
28....	13	7	....	....	....	8	20	224	212	44	23	19
29....	11	7	....	....	....	9	21	234	204	41	19	16
30....	10	7	....	....	....	8	20	285	183	42	18	16
31....	7	....	....	....	....	8	....	320	....	44	14	....
Total	353	235	182	112	80	171	302	3009	9301	3369	893	874
Mean.	11.4	7.83	5.87	3.61	2.86	5.52	10.1	97.1	310	109	28.8	29.1
Max...	19	10	....	....	....	....	21	320	411	213	48	....
Min...	7	7	....	....	....	....	6	26	183	41	14	....
Acre-ft.	701	466	361	222	159	339	601	5970	18400	6700	1770	1730

Discharge of Middle Boulder Creek at Nederland for Year Ending Sept. 30, 1934.
Drainage Area, 38 Square Miles. Altitude, 8,180 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	6	5	4	....	....	13	94	134	41	17	12
2....	14	7	4	4	....	....	12	85	118	38	16	13
3....	17	9	4	4	....	....	13	88	112	37	14	15
4....	14	5	4	4	....	....	12	84	103	44	16	12
5....	13	5	4	4	....	....	11	105	104	49	18	13
6....	13	6	5	4	....	....	12	138	116	38	20	14
7....	13	6	5	4	....	....	13	179	109	34	16	12
8....	13	6	5	5	....	....	17	195	93	32	14	11
9....	13	7	6	5	....	....	21	214	89	30	17	10
10....	13	6	5	5	....	....	23	222	95	28	17	11
11....	12	6	5	6	....	....	28	228	97	27	16	12
12....	12	5	5	5	....	....	29	224	94	25	13	10
13....	12	5	5	4	....	....	32	175	87	24	12	9
14....	12	5	6	3	....	....	32	141	81	23	12	8
15....	11	5	6	4	....	....	35	134	89	23	13	8
16....	10	4	6	....	....	....	28	141	84	22	12	6
17....	7	5	5	....	....	....	30	159	78	21	11	8
18....	5	4	5	....	....	....	34	179	78	20	10	6
19....	5	5	5	....	....	....	40	211	78	18	11	5
20....	6	4	6	....	....	....	41	224	75	18	19	8
21....	9	4	6	....	....	....	50	209	73	18	14	10
22....	8	5	5	....	....	....	63	189	70	20	12	11
23....	10	5	5	....	....	....	67	177	63	22	10	10
24....	10	5	5	....	....	....	74	189	58	25	10	9
25....	10	4	5	....	....	7	87	181	61	24	11	9
26....	9	4	5	....	....	7	87	172	55	24	13	10
27....	8	4	5	....	....	6	80	163	50	28	14	10
28....	8	4	5	....	....	7	71	168	46	19	14	11
29....	8	4	5	....	....	11	80	177	45	17	13	10
30....	8	3	5	....	....	11	86	193	46	16	12	9
31....	8	....	4	....	....	11	....	177	....	15	12	....
Total	327	151	156	135	146	216	1221	5215	2481	820	429	302
Mean.	10.5	5.03	5.03	4.35	5.21	6.97	40.7	168	82.7	26.5	13.8	10.1
Max...	17	9	6	....	....	....	87	228	134	49	20	15
Min...	5	3	4	....	....	....	11	84	45	15	10	5
Acre-ft.	646	299	309	607	289	429	2420	10300	4920	1630	848	601

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of St. Vrain Creek at Lyons for Year Ending Sept. 30, 1933.
Drainage Area, 226 Square Miles. Altitude 5,349 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	7	11	12	6	8	15	267	618	445	100	42
2....	16	16	9	10	5	7	14	292	768	397	95	40
3....	18	18	8	10	5	9	14	351	682	392	130	34
4....	18	16	7	9	5	10	18	402	704	388	112	35
5....	18	14	7	9	4	10	14	407	796	360	95	34
6....	18	18	6	10	3	8	14	416	850	397	120	59
7....	21	18	3	11	2	10	14	333	768	484	103	59
8....	18	9	3	11	2	11	15	297	566	436	93	59
9....	19	14	3	12	2	10	14	254	576	402	85	84
10....	18	20	3	12	2	11	12	242	618	356	82	165
11....	18	11	8	11	2	12	11	284	704	342	78	154
12....	20	6	9	9	3	12	11	263	790	310	71	188
13....	22	17	12	8	3	13	12	254	714	271	65	178
14....	21	24	13	8	3	10	9	254	704	250	60	140
15....	21	17	10	8	4	7	8	271	586	242	60	112
16....	21	13	10	8	4	8	12	364	633	222	76	89
17....	21	17	10	8	7	8	21	479	774	248	76	72
18....	20	14	9	7	5	12	30	628	892	174	72	65
19....	21	17	9	8	6	10	18	709	790	168	74	65
20....	18	16	10	8	6	9	24	709	988	165	82	52
21....	25	13	10	9	6	8	26	671	820	154	58	52
22....	25	14	9	9	5	8	21	671	725	151	52	54
23....	25	9	8	8	6	6	36	612	682	154	48	56
24....	25	4	8	10	6	8	80	529	597	138	44	47
25....	7	9	7	9	6	7	100	436	560	125	42	46
26....	6	12	7	8	6	8	151	412	489	98	47	59
27....	8	16	7	8	7	8	188	445	499	47	56	68
28....	8	15	7	7	7	12	259	460	524	110	54	59
29....	6	13	7	7	....	16	288	479	514	87	50	48
30....	7	12	7	6	....	18	259	524	499	100	44	40
31....	7	....	8	6	....	15	....	581	....	100	37	....
Total	533	419	245	277	128	309	1708	13296	20430	7713	2261	2255
Mean.	17.2	14.0	7.90	8.94	4.57	9.97	56.9	429	681	249	72.9	75.2
Max...	25	24	13	12	7	18	288	709	988	484	130	188
Min...	6	4	3	6	2	6	8	242	489	47	37	34
Acre-ft.	1060	833	486	550	254	613	3390	26400	40500	15300	4480	4470

Discharge of St. Vrain at Lyons for Year Ending Sept. 30, 1934.
Drainage Area, 226 Square Miles. Altitude 5,349 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	20	5	10	12	18	13	142	377	82	51	27
2....	24	19	6	10	14	21	15	134	305	111	47	28
3....	32	21	5	8	14	22	20	300	325	119	46	30
4....	50	20	5	10	14	18	13	426	372	139	43	27
5....	37	12	5	8	16	20	14	421	345	176	37	26
6....	33	10	4	6	14	20	11	426	345	162	37	26
7....	31	22	5	6	13	18	12	484	372	134	36	23
8....	30	20	8	7	11	18	20	544	305	116	37	23
9....	29	21	13	9	12	18	29	538	291	111	51	27
10....	37	20	14	11	14	18	37	532	310	100	59	30
11....	36	19	14	9	10	18	41	508	296	78	56	26
12....	34	18	12	9	12	18	46	514	278	67	51	23
13....	31	18	13	8	14	18	54	415	269	62	50	21
14....	30	18	12	9	17	18	62	310	252	57	44	18
15....	31	16	10	12	14	17	67	265	208	54	40	19
16....	30	12	9	11	14	23	62	278	190	51	44	19
17....	46	20	8	12	18	25	56	340	173	62	40	18
18....	56	14	8	11	15	15	54	388	159	57	38	15
19....	54	18	10	10	18	24	57	466	169	50	38	13
20....	60	18	14	10	18	23	57	490	169	46	40	16
21....	57	16	14	11	16	23	64	514	162	48	46	23
22....	48	16	13	11	16	24	70	443	166	50	41	22
23....	39	21	11	11	21	26	72	421	152	51	39	19
24....	34	17	10	11	18	18	95	432	145	59	37	18
25....	30	19	10	10	18	27	103	432	183	57	34	22
26....	31	17	6	11	18	34	121	399	159	95	33	25
27....	30	15	10	14	21	28	103	399	142	80	32	23
28....	27	7	10	12	20	32	103	438	121	64	35	19
29....	22	5	10	11	....	37	111	415	88	57	32	17
30....	19	5	11	12	....	40	126	502	84	54	30	15
31....	20	....	11	12	....	20	....	502	....	51	29	....
Total	1090	493	296	312	432	699	1708	12818	6912	2500	1273	658
Mean.	35.2	16.4	9.5	10.1	15.4	22.5	56.9	413	230	80.6	41.1	21.9
Max...	60	22	14	14	21	40	126	544	377	176	59	30
Min...	19	5	4	6	10	15	11	134	84	46	29	13
Acre-ft.	2160	976	584	621	855	1380	3390	25400	13700	4960	2530	1300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Fork of St. Vrain Creek Above Longmont Dam for Year Ending Sept 30, 1933. Drainage Area, 109 Square Miles. Altitude, 6,080 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	18	25	16	10	7	11	12	142	405	289	90	37
2....	18	21	15	10	7	10	13	154	450	273	92	34
3....	18	21	14	10	6	11	14	151	405	269	121	30
4....	17	18	12	10	5	11	15	194	410	257	109	28
5....	17	21	13	10	6	10	11	265	481	235	93	27
6....	20	18	10	10	6	10	10	221	508	249	85	24
7....	22	9	6	9	6	11	13	191	476	305	81	24
8....	22	21	7	9	6	11	13	179	385	273	77	26
9....	24	18	7	10	6	11	11	151	395	242	71	42
10....	26	10	9	10	7	12	10	144	430	214	67	83
11....	27	10	14	9	8	13	9	154	530	208	64	75
12....	26	16	16	8	8	15	10	151	586	199	57	102
13....	27	23	14	8	8	14	10	154	547	177	54	102
14....	27	22	13	8	8	11	11	149	564	164	53	92
15....	25	14	11	8	8	12	12	161	503	159	51	80
16....	24	17	10	8	8	12	18	211	486	156	49	65
17....	23	19	10	8	8	12	18	273	542	159	47	56
18....	23	18	10	9	8	12	21	343	440	144	46	53
19....	20	19	10	8	8	10	24	348	547	135	47	53
20....	25	18	11	8	8	9	18	334	635	131	53	47
21....	27	17	10	8	8	12	17	309	564	129	67	43
22....	26	17	9	8	8	10	8	325	508	121	67	44
23....	24	8	9	8	9	10	20	309	503	115	59	47
24....	24	15	9	8	9	11	40	261	455	104	57	42
25....	24	18	9	8	9	11	61	214	425	97	54	40
26....	24	17	8	8	10	12	80	208	385	93	57	52
27....	25	17	8	7	10	13	88	235	356	85	56	52
28....	25	18	9	7	11	17	123	257	352	81	58	49
29....	25	17	10	8	....	19	144	253	338	78	53	46
30....	27	17	10	7	....	19	138	281	317	78	46	42
31....	19	....	9	7	....	16	....	330	....	86	41	....
Total	720	519	328	264	216	378	992	7052	13928	5305	2022	1537
Mean.	23.2	17.3	10.6	8.52	7.71	12.2	33.1	227	464	171	65.2	51.2
Max...	27	25	16	10	11	19	144	348	635	305	121	102
Min...	17	8	6	7	5	9	8	142	317	78	41	24
Acre-ft.	1430	1080	652	524	428	750	1970	14000	27600	10500	4010	3050

Discharge of North Fork of St. Vrain Creek Above Longmont Dam for Year Ending Sept. 30, 1934. Drainage Area, 109 Square Miles. Altitude, 6,080 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	42	21	14	13	11	11	23	98	274	87	53	36
2....	41	18	14	14	12	13	23	94	227	92	49	36
3....	50	22	14	12	13	13	23	150	200	92	50	34
4....	55	20	16	14	12	11	22	224	196	123	46	35
5....	51	10	11	9	12	12	22	220	186	140	49	35
6....	48	16	12	9	13	12	20	224	196	118	49	36
7....	45	21	18	8	12	12	23	259	200	102	48	36
8....	44	19	14	9	12	10	28	299	162	93	51	35
9....	40	20	13	14	12	11	31	221	156	88	54	37
10....	40	20	15	13	12	12	32	299	170	81	57	36
11....	37	18	14	14	11	12	33	278	164	77	51	34
12....	36	17	14	9	13	14	35	287	156	75	48	33
13....	36	17	15	8	13	15	37	256	156	71	47	33
14....	35	17	14	12	11	13	37	210	145	67	47	32
15....	33	16	13	13	11	14	38	200	142	63	46	32
16....	32	15	11	13	13	17	37	210	128	57	44	32
17....	33	17	9	13	13	15	36	245	118	54	40	18
18....	32	15	11	12	10	14	38	259	114	53	38	18
19....	32	16	16	12	11	14	48	291	116	49	38	14
20....	29	17	16	11	13	18	49	312	114	48	44	20
21....	28	13	16	11	11	17	56	312	110	48	50	23
22....	27	16	15	11	13	19	62	287	108	48	44	21
23....	25	16	15	11	12	18	61	274	100	49	42	20
24....	24	15	13	12	12	14	74	283	98	54	40	19
25....	22	15	15	12	10	18	77	287	130	55	38	22
26....	21	14	11	11	12	19	85	263	112	81	37	22
27....	21	15	15	11	13	16	78	274	102	67	37	22
28....	21	14	14	11	12	21	72	304	93	59	36	21
29....	19	15	14	11	....	23	77	312	92	55	38	17
30....	19	14	14	11	....	24	87	385	90	52	38	16
31....	20	....	14	11	....	27	....	365	....	50	38	....
Total	1038	499	430	355	335	479	1364	8052	4355	2248	1387	815
Mean.	33.5	16.6	13.9	11.5	12.0	15.5	45.5	260	145	72.5	44.7	27.2
Max...	55	22	18	14	13	27	87	385	274	140	57	37
Min...	19	10	9	8	10	10	20	94	90	48	36	14
Acre-ft.	2060	988	855	707	666	953	2710	16000	8630	4460	2750	1620

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of St. Vrain Creek at Mouth for Year Ending Sept. 30, 1933.
Drainage Area, 1,000 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	30	55	52	....	....	52	33	172	441	67	56	61
2....	30	57	50	....	....	52	31	118	432	58	67	54
3....	31	52	52	....	....	52	30	112	412	74	118	51
4....	32	54	....	....	....	55	32	1400	206	87	114	52
5....	34	54	....	....	....	35	40	1240	159	95	92	66
6....	34	54	....	....	....	51	41	820	186	76	95	78
7....	33	54	....	....	....	61	38	580	181	87	100	78
8....	32	56	....	....	....	54	34	428	125	142	85	75
9....	39	49	....	....	....	49	35	340	71	159	72	81
10....	46	51	....	....	....	45	36	354	54	144	64	221
11....	49	51	....	....	....	46	37	545	63	109	51	289
12....	46	56	....	....	....	45	38	988	163	136	48	188
13....	46	57	....	....	....	44	40	655	454	119	42	165
14....	45	57	....	....	....	46	41	484	450	95	41	161
15....	45	58	....	....	....	44	43	416	329	109	38	154
16....	44	58	....	....	....	39	43	369	255	135	32	144
17....	43	55	....	....	....	36	42	400	292	145	27	130
18....	44	56	....	....	....	43	36	627	480	147	35	119
19....	45	57	50	....	....	49	31	1150	616	114	44	106
20....	48	54	....	....	....	44	29	1620	708	100	46	112
21....	48	50	....	....	72	44	52	1650	772	100	45	112
22....	48	54	....	....	....	46	68	1500	545	80	44	108
23....	49	52	....	....	....	42	214	1530	445	140	40	98
24....	50	51	....	....	....	39	315	1460	315	160	38	88
25....	56	51	....	42	....	38	201	1120	216	120	38	87
26....	58	55	....	....	....	35	156	946	174	90	58	75
27....	57	54	....	....	....	36	154	791	136	54	69	81
28....	57	52	....	....	....	38	130	791	111	51	96	81
29....	56	52	....	....	....	35	121	778	87	44	103	87
30....	52	55	....	....	....	35	170	684	68	44	78	78
31....	51	....	....	....	....	34	....	521	....	49	68	....
Total	1378	1621	....	....	....	1364	2311	24589	8946	3130	1944	3280
Mean.	44.5	54.0	40.0	38	55	44.0	77.0	793	298	101	62.7	109
Max...	58	58	....	....	....	61	315	1650	772	160	118	289
Min...	30	49	....	....	....	34	29	112	54	44	27	51
Acre-ft.	2740	3210	2460	2340	3050	2710	4580	48800	17700	6210	3860	6490

Discharge of St. Vrain Creek at Mouth for Year Ending Sept. 30, 1934.
Drainage Area, 1,000 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	71	53	56	66	74	118	62	81	112	24	56	25
2....	67	54	68	57	71	114	69	75	98	20	53	24
3....	64	57	81	57	68	103	78	107	61	23	53	31
4....	60	60	76	62	69	84	107	541	57	40	50	24
5....	58	60	64	66	67	75	127	534	55	56	53	20
6....	64	61	64	63	62	76	120	472	57	52	55	20
7....	69	60	66	56	78	90	103	392	56	44	55	23
8....	75	60	64	61	74	92	92	340	57	43	56	19
9....	78	62	61	88	74	90	87	455	58	45	54	20
10....	88	62	62	76	87	87	87	700	53	48	58	19
11....	84	58	62	68	88	84	95	534	60	41	64	20
12....	79	57	61	61	84	69	102	292	50	42	66	20
13....	75	55	60	58	90	62	107	214	43	48	68	19
14....	74	54	58	82	103	60	123	649	197	48	66	18
15....	71	57	55	81	112	64	140	409	330	52	64	18
16....	64	56	57	66	90	62	131	224	282	48	61	17
17....	62	56	55	78	92	58	123	127	221	49	58	17
18....	63	55	53	78	92	63	105	74	179	56	54	20
19....	75	58	60	67	79	58	90	54	145	52	53	26
20....	75	55	71	60	82	56	90	43	112	47	55	25
21....	75	54	69	64	92	54	95	36	165	52	51	28
22....	75	53	64	72	96	50	118	44	143	55	50	27
23....	71	52	63	63	96	52	116	42	109	54	47	27
24....	61	51	61	63	103	58	136	35	98	68	44	27
25....	58	51	57	69	190	72	112	32	100	62	42	26
26....	62	49	56	68	168	78	107	39	81	60	36	27
27....	61	50	53	75	170	93	165	44	66	78	37	27
28....	60	50	60	76	136	79	148	44	47	67	36	27
29....	53	51	66	62	....	64	118	53	36	63	32	23
30....	54	53	69	61	....	62	95	42	31	66	30	17
31....	53	....	63	66	....	62	....	66	....	60	27	....
Total	2099	1664	1935	2090	2687	2289	3248	6794	3159	1563	1584	681
Mean.	67.7	55.5	62.4	67.4	96.0	73.8	108	219	105	50.4	51.1	22.7
Max...	88	62	81	88	190	118	165	700	330	78	68	31
Min...	53	49	53	56	62	50	62	32	31	20	27	17
Acre-ft.	4160	3300	3840	4140	5330	4540	6430	13500	6250	3100	3140	1350

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Left Hand Creek Near Mouth Near Longmont for Year Ending Sept. 30, 1933.
Drainage Area 74 Square Miles. Altitude 4,990 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2	6	2	....	....	2	1	61	20	10	10	4
2....	2	7	2	....	....	2	1	78	9	12	10	5
3....	2	7	2	....	....	2	1	95	5	13	11	7
4....	2	7	2	....	....	2	2	107	7	13	10	3
5....	3	6	2	....	....	2	2	132	7	12	10	4
6....	3	7	2	....	....	2	2	168	6	14	12	4
7....	3	10	4	....	....	2	1	120	7	17	11	4
8....	3	9	5	....	....	2	1	105	7	27	9	4
9....	4	5	5	....	....	2	1	82	6	24	8	7
10....	4	6	5	....	....	2	2	76	6	21	7	31
11....	3	10	....	....	....	1	2	87	14	27	4	18
12....	3	10	....	....	....	1	2	75	32	26	4	22
13....	3	7	....	....	....	1	2	87	43	23	4	32
14....	3	9	....	....	....	1	2	85	45	22	4	19
15....	3	5	....	....	....	1	1	81	31	22	4	15
16....	3	5	....	....	....	1	1	83	35	24	4	15
17....	3	6	....	....	....	1	4	120	39	29	3	14
18....	3	7	....	....	....	2	7	238	32	28	2	13
19....	3	5	....	....	....	2	9	305	26	26	3	12
20....	3	4	....	....	....	1	7	332	26	16	3	11
21....	3	4	2	....	....	1	7	262	28	9	3	10
22....	3	4	....	....	....	1	9	236	24	16	3	9
23....	2	3	....	....	....	1	6	212	24	20	2	8
24....	4	3	....	....	3	1	9	182	28	17	3	7
25....	4	2	....	5	....	1	8	130	27	14	3	6
26....	4	2	....	....	....	1	7	99	18	14	4	6
27....	9	3	....	....	....	1	6	102	18	8	2	5
28....	6	3	....	....	....	1	38	81	18	8	4	4
29....	6	2	....	....	....	1	40	62	14	9	4	5
30....	7	2	....	....	....	1	51	46	9	7	4	6
31....	7	....	....	....	....	1	....	34	....	7	4	....
Total	113	166	....	....	....	43	232	3963	611	535	169	310
Mean.	3.65	5.53	3.0	4.0	3.0	1.39	7.73	128	20.4	17.3	5.45	10.3
Max..	9	10	....	....	....	2	51	332	45	29	12	32
Min..	2	2	....	....	....	1	1	34	5	7	2	3
Acre-ft.	224	329	184	246	167	85	460	7870	1210	1060	335	613

Discharge of Left Hand Creek Near Mouth Near Longmont for Year Ending Sept. 30, 1934.
Drainage Area, 74 Square Miles. Altitude, 4,990 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	4	5	5	4	4	2	6	5	4	3	1
2....	5	4	8	5	4	4	2	5	5	4	3	2
3....	5	4	6	5	4	4	3	26	5	4	3	2
4....	5	5	6	5	5	3	3	70	7	4	3	2
5....	5	5	6	5	4	3	3	103	6	5	3	2
6....	5	5	9	4	4	3	3	98	6	4	3	2
7....	6	5	6	4	5	3	3	80	7	4	3	2
8....	5	5	5	4	5	4	2	66	7	4	3	2
9....	4	5	6	4	5	4	2	39	9	4	3	3
10....	4	5	5	5	5	4	2	19	8	4	2	2
11....	4	5	5	5	4	3	5	16	6	4	2	3
12....	3	4	6	5	4	3	8	7	5	4	2	2
13....	3	4	6	5	5	3	9	34	6	3	2	2
14....	4	4	6	5	5	3	11	55	5	3	1	2
15....	3	4	6	4	5	3	13	39	19	4	2	2
16....	3	4	6	4	4	3	18	15	16	4	4	2
17....	3	4	6	4	5	4	16	9	15	4	1	1
18....	3	5	6	5	4	3	11	5	14	4	2	2
19....	3	5	6	5	5	3	6	4	14	4	2	2
20....	4	4	6	5	4	2	5	4	11	3	2	3
21....	6	4	6	5	4	2	4	5	10	3	2	3
22....	6	4	5	4	4	2	4	3	5	3	2	4
23....	4	4	6	4	4	2	3	3	6	3	1	2
24....	4	4	6	4	4	3	4	4	10	3	1	2
25....	4	5	5	5	4	4	5	4	11	4	2	4
26....	3	5	5	5	4	4	12	4	11	3	1	5
27....	3	4	5	4	4	3	19	4	8	4	1	3
28....	3	4	5	4	4	3	10	4	7	4	1	4
29....	4	5	4	4	....	3	8	4	5	3	1	4
30....	3	5	5	4	....	3	6	5	4	3	1	4
31....	4	....	5	4	....	3	....	6	....	3	1	....
Total	125	134	178	141	122	101	201	746	253	114	63	76
Mean.	4.0	4.5	5.7	4.5	4.4	3.3	6.7	24.1	8.4	3.7	2.0	2.5
Max..	6	5	9	5	5	4	19	103	19	5	4	5
Min..	3	4	4	4	2	2	2	3	4	3	1	1
Acre-ft.	246	268	350	277	244	203	399	1480	500	228	123	149

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River Near Estes Park for Year Ending Sept. 30, 1933.
Drainage Area, 153 Square Miles. Altitude, 7,360 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	33	17						79	987	487	211	77
2....	33	15						79	1030	553	264	86
3....	32	13						77	978	565	211	66
4....	31	14						71	987	676	207	51
5....	29	20						79	996	583	174	50
6....	26	15						90	892	565	200	62
7....	24	20						69	960	559	170	54
8....	22	37						79	683	583	160	59
9....	20	40						106	795	487	147	73
10....	26	39						84	926	423	167	86
11....	25	52						82	978	452	174	141
12....	28	109						66	960	440	111	174
13....	29	124						68	1070	411	192	174
14....	25	73						77	1000	395	102	122
15....	22	75						79	909	367	104	109
16....	19							90	867	345	116	114
17....	18	26						106	1180	345	124	111
18....	18							154	1300	334	99	109
19....	25							228	943	274	151	109
20....	26							284	1030	255	147	102
21....	23					14		411	934	250	111	73
22....	22		12					378	892	228	90	66
23....	22				10			361	827	224	71	73
24....	23			12				356	788	211	68	71
25....	25							340	631	192	68	59
26....	27							284	625	207	90	68
27....	23							378	607	196	84	86
28....	19						73	406	625	151	133	90
29....	20						102	411	601	141	116	69
30....	20						82	547	571	200	109	71
31....	21							559		200	104	
Total	756							6478	26572	11299	4275	2655
Mean..	24.4							209	886	364	138	88.5
Max...	33							559	1300	676	264	174
Min...	18							66	571	141	68	50
Acre-ft.	1500							12900	52700	22400	8480	5270

Discharge of Big Thompson River Near Estes Park for Year Ending Sept. 30, 1934.
Drainage Area, 157 Square Miles. Altitude, 7,424 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	66	27			12	15	14	121	380	149	81	47
2....	73	26				26	14	128	380	136	78	47
3....	71	25				8	20	158	344	134	74	44
4....	73	23				20	20	156	298	163	74	40
5....	62	23				12	18	185	263	178	85	41
6....	56	23				8	16	243	248	152	87	42
7....	54	22				8	20	313	251	128	100	41
8....	51	21				5	23	328	214	117	89	42
9....	50	21			23	8	25	335	206	115	90	50
10....	48	20				21	28	348	203	111	104	42
11....	42	21				16	31	325	203	105	105	38
12....	42	19				14	35	354	198	98	92	36
13....	64	18				14	45	313	198	96	85	34
14....	57	18				12	47	263	198	94	78	33
15....	48	19				14	49	254	217	87	74	35
16....	42	19				18	44	263	228	87	70	47
17....	40	19				14	39	292	289	85	65	32
18....	34	19				12	41	289	383	85	60	26
19....	29	19				12	50	332	283	81	54	26
20....	29	19				13	60	325	212	81	59	36
21....	28	20				13	65	341	163	78	57	41
22....	32	20				13	74	328	161	80	56	40
23....	29	21				13	83	298	156	85	59	35
24....	27	21				14	100	316	161	98	102	35
25....	33	21				11	111	307	193	90	47	39
26....	31	21				12	128	307	175	96	44	39
27....	29	20	19	11	8	11	104	335	156	92	57	34
28....	29	20			13	12	96	360	147	89	59	35
29....	27	20				20	102	386	143	85	56	35
30....	27	20				20	105	430	156	81	50	34
31....	26					18		417		81	49	
Total	1349	625				427	1607	9150	6807	3237	2240	1146
Mean..	43.5	20.8	20	15	14	13.8	53.6	295	227	104	72.3	38.2
Max...	73	27				26	128	430	383	178	105	50
Min...	26	18				5	14	121	143	78	44	26
Acre-ft.	2670	1240	1230	922	778	848	3190	18100	13500	6400	4450	2270

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River Below Loveland Power Plant Near Drake for Year Ending Sept. 30, 1933. Drainage Area 277 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	43	32	25	11	12	13	25	142	750	447	218	95
2....	41	33	20	15	8.6	16	18	146	822	421	208	88
3....	40	32	20	16	9.8	17	25	152	750	463	227	81
4....	41	29	16	13	7.4	17	24	174	740	623	223	78
5....	40	25	19	16	4.2	14	24	188	838	495	198	74
6....	35	36	13	15	3.0	16	22	208	806	499	186	68
7....	36	28	11	16	2.8	16	22	180	838	533	180	67
8....	32	18	11	14	2.4	16	22	170	665	475	180	68
9....	34	25	11	15	2.6	16	16	150	660	443	176	93
10....	41	32	11	16	3.0	16	16	166	650	410	168	130
11....	38	17	9	14	3.4	18	16	202	888	430	166	158
12....	39	12	9	13	2.3	20	15	184	948	410	146	210
13....	40	14	9	12	5.0	22	17	184	904	420	130	182
14....	39	18	9	12	5.9	19	14	190	926	556	123	156
15....	35	22	9	13	5.0	16	19	198	785	546	120	134
16....	33	24	11	12	5.0	16	18	234	745	380	112	116
17....	35	28	11	12	5.9	16	20	256	806	287	114	102
18....	33	29	11	12	5.3	20	23	311	833	272	114	95
19....	30	31	11	12	9.2	16	26	366	795	256	111	93
20....	28	26	11	12	6.8	15	30	418	855	240	116	90
21....	40	25	12	12	9.8	16	30	455	806	234	116	83
22....	40	24	12	12	12	16	16	499	770	225	111	81
23....	36	13	12	13	5.6	13	32	487	690	223	103	81
24....	42	13	12	13	12	12	54	447	628	212	96	86
25....	34	20	14	12	12	14	59	455	560	204	91	80
26....	38	25	15	12	13	14	77	380	551	196	93	95
27....	41	23	12	12	12	18	105	447	511	184	107	114
28....	29	27	12	12	16	21	152	479	471	172	129	105
29....	32	24	12	11	....	23	162	487	483	166	129	100
30....	36	26	12	12	....	25	152	538	455	164	112	90
31....	28	....	16	9.8	....	20	....	646	....	206	100	....
Total	1129	731	398	401.8	202	527	1251	9539	21929	10792	4403	3093
Mean.	36.4	24.4	12.8	13.0	7.21	17.0	41.7	308	731	348	142	103
Max..	43	36	25	16	16	25	162	646	948	623	227	210
Min..	28	12	....	9.8	2.3	12	14	142	455	164	91	67
Acre-ft.	2240	1450	787	799	400	1050	2480	18900	43500	21400	8730	6130

Discharge of Big Thompson River Below Loveland Power Plant Near Drake for Year Ending Sept. 30, 1934. Drainage Area 277 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	87	37	27	23	20	21	26	147	452	182	82	47
2....	84	37	30	28	22	20	26	170	404	174	81	45
3....	82	37	25	20	24	28	29	200	364	160	79	44
4....	81	40	28	17	21	20	26	210	350	165	77	45
5....	78	25	31	18	22	22	29	232	319	177	87	45
6....	76	22	21	14	23	25	31	275	305	174	93	52
7....	71	40	17	12	22	24	33	350	299	172	96	52
8....	68	39	26	12	21	21	36	446	291	156	94	52
9....	65	42	27	14	21	19	39	449	269	140	96	58
10....	61	41	28	18	21	18	42	482	264	138	109	60
11....	56	38	31	22	20	25	45	461	264	127	121	54
12....	56	37	29	18	21	27	48	476	261	119	101	49
13....	56	34	30	15	21	26	51	458	256	109	93	45
14....	64	33	30	14	20	23	54	364	251	104	83	44
15....	61	33	24	16	21	25	58	341	258	99	77	33
16....	56	28	15	15	19	25	56	338	266	97	81	41
17....	49	34	11	21	22	27	50	392	253	96	81	37
18....	48	30	12	21	21	20	47	392	238	94	76	37
19....	47	28	20	18	16	25	52	443	227	90	76	34
20....	45	35	31	18	18	23	59	449	217	84	82	38
21....	46	33	34	20	23	23	68	458	212	82	74	45
22....	45	28	33	18	21	25	84	455	204	81	65	44
23....	43	30	30	20	21	25	123	425	174	82	60	45
24....	45	26	24	22	22	23	142	425	170	93	56	40
25....	39	25	23	21	21	23	160	425	182	102	55	41
26....	42	26	22	20	14	24	131	413	190	105	49	52
27....	41	29	22	18	16	24	117	404	194	115	52	53
28....	36	27	26	18	25	23	117	419	187	96	72	45
29....	37	26	25	22	....	24	123	428	174	86	60	37
30....	37	25	23	19	....	26	140	455	163	82	53	42
31....	37	....	26	18	....	28	....	494	....	81	51	....
Total	1739	965	781	570	579	732	2042	11876	7658	3662	2412	1356
Mean.	56.1	32.2	25.2	18.4	20.7	23.6	68.1	383	255	118	77.8	45.2
Max..	87	42	34	28	25	28	160	494	452	182	121	60
Min..	36	22	11	12	14	18	26	147	163	81	49	33
Acre-ft.	3450	1910	1550	1130	1150	1450	4050	23560	15190	7260	4780	2690

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River at Canon Mouth for Year Ending Sept. 30, 1933.
Drainage Area 301 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug	Sept.
1....	41	34	....	....	....	....	....	148	822	536	233	90
2....	40	34	....	....	....	....	....	155	1000	506	224	87
3....	39	33	....	....	....	....	....	184	876	536	226	85
4....	41	32	....	....	....	....	....	204	862	721	222	81
5....	41	32	....	....	....	....	....	217	980	576	206	77
6....	37	37	....	....	....	....	....	236	950	576	198	74
7....	36	34	....	....	....	....	....	200	1020	628	188	75
8....	33	37	....	....	....	....	....	182	791	564	188	79
9....	34	40	....	....	....	....	....	166	800	506	182	110
10....	39	44	....	....	....	....	....	182	774	466	173	159
11....	38	52	....	....	....	....	....	224	1080	452	168	171
12....	38	52	....	....	....	....	....	215	1140	441	150	231
13....	38	49	....	....	....	....	....	219	1090	408	143	192
14....	38	39	....	....	....	....	....	224	1110	370	134	168
15....	37	32	....	....	....	....	....	231	940	351	128	152
16....	35	32	....	....	....	....	....	286	895	323	117	130
17....	35	34	....	....	....	....	....	278	985	299	125	116
18....	34	34	....	....	....	....	....	320	1000	281	120	104
19....	37	34	....	....	....	....	....	386	955	258	122	110
20....	35	31	....	....	....	....	....	434	1000	245	130	98
21....	41	32	....	....	....	....	....	474	990	233	132	93
22....	38	32	15	....	....	....	27	540	955	224	124	98
23....	37	31	....	....	....	....	34	506	858	240	116	100
24....	41	31	....	17	17	....	55	452	782	226	107	103
25....	34	32	....	....	....	....	63	383	734	219	103	94
26....	41	32	....	....	....	....	77	332	681	206	99	116
27....	47	32	....	....	....	....	100	441	628	198	110	134
28....	37	32	....	....	....	....	157	492	592	188	125	122
29....	34	31	....	....	....	....	182	506	600	175	125	116
30....	34	32	....	....	....	....	164	580	548	173	114	108
31....	31	....	....	....	....	....	....	721	....	208	99	....
Total	1161	1063	....	....	....	....	....	10088	26438	11333	4631	3473
Mean.	37.5	35.4	14	13.5	8.0	17.5	43.0	325	881	366	149	116
Max..	47	52	....	....	....	....	....	721	1140	721	233	231
Min..	31	31	....	....	....	....	....	148	548	173	99	74
Acre-ft.	2310	2110	861	830	444	1080	2560	20000	52400	22500	9160	6900

Discharge of Big Thompson River at Mouth for Year Ending Sept. 30, 1933.
Drainage Area 818 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	40	38	....	21	32	2	57	61	3	12	4
2....	1	38	40	....	19	32	2	39	32	3	14	3
3....	1	36	41	....	24	32	2	38	14	6	35	3
4....	1	37	40	....	29	32	2	61	....	21	27	3
5....	1	38	40	....	29	30	2	84	26	32	16	3
6....	2	34	41	....	23	28	2	79	16	15	12	3
7....	2	29	39	....	24	26	2	96	6	24	22	2
8....	2	23	37	....	32	24	2	69	4	36	18	2
9....	2	16	46	....	31	22	2	23	2	33	21	2
10....	2	4	48	....	31	22	2	40	16	21	10	12
11....	2	46	....	....	31	23	1	82	27	9	4	29
12....	19	3	....	....	31	23	2	111	21	14	4	73
13....	28	3	....	....	31	24	3	96	10	8	3	48
14....	26	10	....	....	31	23	3	88	8	14	3	27
15....	27	35	....	....	31	28	3	75	7	66	3	26
16....	29	36	....	....	31	22	3	65	4	76	3	19
17....	32	35	....	....	32	19	4	90	7	58	3	20
18....	36	34	....	....	32	16	4	110	14	31	3	18
19....	39	38	29	....	30	14	5	110	10	17	2	16
20....	40	38	....	....	29	9	12	113	10	6	2	13
21....	39	38	....	....	30	2	22	110	9	4	2	15
22....	41	39	....	....	34	2	31	93	7	8	1	12
23....	42	41	....	....	33	2	41	78	6	24	2	11
24....	42	41	....	....	33	2	31	79	7	36	2	12
25....	45	42	....	24	35	2	16	116	4	32	3	13
26....	46	38	....	24	33	2	4	138	9	12	3	18
27....	44	40	....	21	32	2	8	146	4	6	3	20
28....	44	43	....	23	33	2	5	134	4	5	4	17
29....	48	44	....	22	....	2	4	114	4	3	10	18
30....	47	39	....	20	....	2	8	91	4	3	7	18
31....	44	....	....	22	....	2	....	66	....	3	6	....
Total	775	934	....	....	835	504	230	2696	359	629	260	480
Mean.	25.0	31.1	34.5	24	29.8	16.3	7.67	87.0	12.0	20.3	8.39	16.0
Max..	48	44	....	....	35	32	41	146	61	76	35	73
Min..	1	2	....	....	19	2	1	28	2	3	1	2
Acre-ft.	1540	1850	2120	1480	1660	1000	456	5350	714	1250	516	952

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Thompson River at Mouth for Year Ending Sept. 30, 1934.
Drainage Area 818 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	40	33	45	42	32	36	30	1	3	3	0	0
2....	40	34	46	40	32	35	32	1	4	2	0	0
3....	40	33	47	40	32	34	32	20	9	2	0	0
4....	40	31	48	41	32	31	32	49	8	3	0	0
5....	40	29	47	41	32	30	38	5	5	3	0	0
6....	40	27	49	40	31	29	40	5	4	2	0	0
7....	40	27	51	32	32	31	38	4	4	2	0	0
8....	40	26	52	38	31	30	36	4	3	2	0	0
9....	61	26	49	39	32	32	32	3	4	2	0	0
10....	64	28	48	35	34	32	31	2	4	2	0	0
11....	64	29	48	37	32	32	27	2	3	2	0	0
12....	65	27	48	34	32	30	16	2	2	2	0	0
13....	67	33	48	35	33	30	6	3	2	1	0	0
14....	71	39	49	36	34	29	6	3	3	0	0	0
15....	73	40	49	36	33	29	6	2	15	0	0	0
16....	70	40	49	35	31	30	5	1	10	0	0	0
17....	63	41	49	35	31	33	5	0	6	0	0	0
18....	63	40	48	37	32	32	5	0	2	0	0	0
19....	60	36	48	37	32	28	4	1	1	0	0	0
20....	53	38	48	37	31	28	3	2	2	0	0	0
21....	45	39	49	36	31	29	2	4	2	0	0	0
22....	45	40	49	36	32	28	2	2	2	0	0	0
23....	46	41	49	36	33	28	2	2	2	0	0	0
24....	49	45	49	36	32	29	2	2	2	0	0	0
25....	49	48	49	37	30	28	1	1	2	0	0	0
26....	47	46	48	36	27	35	1	1	1	0	0	0
27....	43	44	47	35	28	28	1	1	1	0	0	0
28....	41	44	47	34	34	30	1	1	1	0	0	0
29....	39	43	47	33	....	29	1	1	0	0	0	0
30....	38	44	47	32	....	28	0	1	2	0	0	0
31....	33	....	45	31	....	28	....	5	....	0	0	....
Total	1569	1091	1492	1129	888	941	437	135	109	28	0	0
Mean.	50.6	36.4	48.1	36.4	31.7	30.4	14.6	4.4	3.6	0.9	0	0
Max..	73	48	52	42	34	36	40	49	15	3	....	....
Min..	33	26	45	31	27	28	0	0	0	0	....	....
Acre-ft.	3110	2170	2960	2240	1760	1870	869	271	214	55	0	0

Discharge of Cache La Poudre River at Mouth of Canon Near Fort Collins for Year Ending Sept. 30, 1933. Drainage Area, 1,048 Square Miles. Altitude, 5,070 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	50	29	35	....	....	105	30	222	2400	1240	440	96
2....	50	42	30	....	....	76	29	270	2650	1180	454	86
3....	56	42	25	....	....	62	26	290	2430	1190	461	222
4....	58	43	20	....	....	49	34	310	2570	1370	365	260
5....	60	36	22	....	....	46	32	295	3030	1230	290	270
6....	54	36	16	....	....	50	24	428	3110	1110	260	255
7....	52	41	9	....	....	46	23	428	2940	1100	230	260
8....	56	31	7	....	....	42	27	422	2200	1270	404	275
9....	66	26	....	....	....	39	28	416	2270	1190	428	864
10....	76	50	....	....	....	36	26	447	2570	1060	380	510
11....	70	43	....	....	....	36	22	482	3250	997	375	398
12....	76	23	....	....	....	34	26	461	2990	889	355	566
13....	76	48	....	....	....	35	45	454	3090	824	330	580
14....	72	50	....	....	....	31	44	517	3110	752	186	475
15....	72	39	....	....	....	23	38	475	2570	650	148	404
16....	72	34	....	....	....	26	46	573	2650	608	152	245
17....	66	38	....	....	....	28	54	622	2660	575	141	172
18....	64	40	....	....	....	30	66	685	2520	550	21	120
19....	64	38	....	....	....	26	76	760	2310	505	360	138
20....	56	36	....	....	....	24	86	808	2810	525	360	186
21....	48	36	....	....	....	27	76	824	2640	489	365	86
22....	56	34	....	....	....	25	43	907	2320	489	360	74
23....	64	34	22	....	....	18	30	848	1880	468	375	93
24....	64	22	....	....	26	23	47	768	1740	422	180	72
25....	58	25	....	19	....	22	56	736	1620	440	108	68
26....	42	36	....	....	....	28	68	760	1560	335	108	88
27....	43	32	....	....	....	32	78	979	1540	300	255	134
28....	40	34	....	....	....	32	152	1130	1440	265	141	108
29....	38	34	....	....	....	33	218	1340	1450	235	138	111
30....	37	28	....	....	....	34	226	1600	1380	345	124	93
31....	37	....	....	....	....	32	....	1930	....	422	108	....
Total	1793	1080	....	....	....	1150	1776	21187	71700	23020	8585	7309
Mean.	57.8	36.0	21.6	19	26	37.1	59.2	683	2390	743	277	244
Max..	76	50	....	....	....	105	226	1930	3250	1370	461	864
Min..	37	23	....	....	....	18	22	222	1380	422	108	68
Acre-ft.	3550	2140	1330	1170	1440	2280	3520	42000	142000	45700	17000	14500

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cache La Poudre River at Mouth of Canon Near Fort Collins for Year Ending Sept. 30, 1934. Drainage Area 1,048 Square Miles. Altitude 5,070 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	84	40	32	35	35	50	45	386	1090	434	210	45
2....	82	43	35	38	35	42	42	475	848	422	190	43
3....	74	41	31	38	37	41	43	538	728	392	183	45
4....	66	42	30	40	33	39	43	524	685	245	172	48
5....	64	39	29	42	35	33	42	622	685	270	130	44
6....	64	40	29	28	37	36	40	768	650	250	114	43
7....	62	39	33	30	38	38	35	1060	636	194	108	43
8....	58	43	34	20	35	38	41	1240	552	186	93	45
9....	56	45	40	31	32	34	41	1310	468	176	90	47
10....	54	46	40	33	36	35	43	1470	552	155	88	58
11....	52	43	39	31	42	36	44	1310	566	141	96	54
12....	50	42	38	96	38	37	49	1470	545	127	111	48
13....	50	42	39	43	37	36	58	1390	531	114	111	46
14....	49	43	40	34	38	37	64	979	325	102	96	45
15....	49	43	35	35	35	36	76	907	270	226	152	43
16....	48	40	37	30	34	39	78	925	280	295	214	43
17....	45	41	22	30	39	40	70	1170	280	290	218	44
18....	45	41	30	31	38	38	68	1080	260	290	214	39
19....	45	41	34	30	36	34	66	1250	250	260	214	38
20....	45	42	40	30	38	37	72	1300	280	120	158	43
21....	46	42	41	36	43	38	82	1290	280	74	96	48
22....	47	38	38	32	37	39	114	1240	265	124	68	56
23....	45	40	35	32	44	40	162	1150	240	120	54	52
24....	43	37	32	32	44	39	198	1120	230	141	72	49
25....	42	33	39	38	40	38	285	1080	320	158	60	50
26....	41	32	32	40	42	40	398	1070	285	186	48	56
27....	42	30	32	30	44	43	290	1040	222	210	48	58
28....	42	33	36	35	43	42	300	1020	186	134	46	54
29....	41	31	32	39	....	42	315	1060	310	111	47	58
30....	40	29	37	46	....	42	325	1270	434	108	47	58
31....	39	....	39	37	....	45	....	1250	....	169	47	....
Total	1610	1181	1080	1122	1065	1203	3529	32764	13253	6224	3595	1443
Mean.	51.9	39.4	34.8	36.2	38.0	38.8	118	1060	442	201	116	48.1
Max..	84	46	41	96	44	50	398	1470	1090	434	218	58
Min..	39	29	22	20	32	33	35	386	186	74	46	38
Acre-ft.	3190	2340	2140	2230	2110	2390	7020	65200	26300	12400	7130	2860

Discharge of Cache La Poudre River Near Mouth for Year Ending Sept. 30, 1933. Drainage Area 1,840 Square Miles. Altitude 4,610 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	48	73	76	50	55	54	34	3	13	11	15	58
2....	48	76	72	50	52	49	33	3	33	21	18	60
3....	50	74	74	54	47	47	32	4	53	39	113	32
4....	54	70	73	55	50	48	33	15	25	29	73	14
5....	50	70	72	54	52	45	33	10	21	35	29	14
6....	14	69	68	52	52	50	29	6	602	19	22	15
7....	11	72	69	56	49	55	17	4	749	16	22	13
8....	13	70	53	55	54	55	5	4	455	19	22	12
9....	16	73	53	55	52	50	5	4	106	26	22	15
10....	16	77	54	58	48	49	5	36	54	17	20	22
11....	13	84	55	58	50	52	6	107	83	16	17	25
12....	16	108	56	53	49	52	6	126	874	17	19	63
13....	14	108	59	52	49	52	6	101	490	14	19	70
14....	18	110	59	52	50	53	4	100	1200	13	17	58
15....	22	102	55	53	52	55	5	95	1190	16	19	35
16....	17	94	53	55	48	53	6	72	134	14	19	30
17....	18	95	54	59	47	52	6	24	113	13	21	24
18....	22	91	54	56	49	56	7	10	116	13	50	22
19....	29	83	50	54	48	54	7	9	93	14	54	25
20....	36	84	49	53	48	52	9	10	35	13	54	22
21....	42	80	50	56	49	51	53	10	35	20	42	16
22....	42	83	49	55	52	50	83	10	35	55	15	13
23....	46	81	45	54	52	49	60	15	32	50	16	14
24....	50	79	49	56	52	48	27	10	42	40	13	17
25....	55	79	50	58	52	47	7	14	106	15	12	18
26....	65	78	49	58	53	47	7	9	88	15	17	23
27....	80	74	49	48	52	47	5	10	69	14	17	39
28....	78	76	53	56	52	49	6	20	21	13	14	29
29....	81	78	47	59	....	45	4	12	14	15	22	22
30....	81	80	46	55	....	37	5	14	13	14	45	21
31....	79	....	48	59	....	34	....	14	....	14	61	....
Total	1224	2471	1743	1698	1415	1537	545	881	6894	640	919	841
Mean.	39.5	82.4	56.2	54.8	50.5	49.6	18.2	28.4	230	20.6	29.6	28.0
Max..	81	110	76	59	55	56	83	126	1200	55	113	70
Min..	11	69	45	48	47	34	4	3	13	11	12	12
Acre-ft.	2430	4900	3460	3370	2800	3050	1080	1750	13700	1270	1820	1670

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cache La Poudre River Near Mouth for Year Ending Sept. 30, 1934.
Drainage Area 1,840 Square Miles. Altitude 4,610 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	74	85	78	70	75	51	9	22	50	8	7
2....	20	75	96	81	70	75	48	10	28	16	7	7
3....	30	78	97	81	71	72	51	10	38	18	8	7
4....	29	75	92	78	71	70	54	10	31	20	8	7
5....	32	76	89	76	70	69	51	10	21	23	8	8
6....	28	83	90	74	70	64	49	10	14	20	9	8
7....	23	82	86	65	72	66	48	9	14	20	10	8
8....	19	81	88	71	71	66	45	10	17	20	10	10
9....	25	79	88	80	70	68	42	10	38	20	10	8
10....	24	81	85	82	74	68	42	9	39	20	11	8
11....	25	81	88	81	72	65	41	10	33	21	11	8
12....	27	79	88	77	72	63	39	12	10	21	11	8
13....	21	81	88	81	76	63	29	27	10	20	12	8
14....	37	74	83	78	77	60	12	30	15	20	12	8
15....	81	74	82	77	74	62	12	13	22	20	20	8
16....	95	78	83	80	72	59	13	12	17	18	36	8
17....	96	78	81	88	72	59	12	10	16	18	34	8
18....	99	78	77	87	72	59	10	13	10	17	34	8
19....	99	75	82	88	71	59	10	14	9	16	24	8
20....	100	72	88	88	72	58	10	16	12	15	5	20
21....	92	75	87	85	74	56	10	13	15	17	5	41
22....	89	75	86	86	74	51	8	14	15	15	6	39
23....	86	74	87	87	74	52	7	14	13	47	7	36
24....	88	78	86	88	74	57	7	18	13	52	7	35
25....	82	76	88	85	65	60	8	28	14	38	7	25
26....	81	76	91	82	60	58	10	25	16	6	8	6
27....	78	81	90	81	69	56	10	19	17	6	7	6
28....	76	79	86	82	72	52	10	17	24	6	7	6
29....	75	81	82	83	...	49	10	14	47	7	8	7
30....	75	81	81	76	...	50	8	14	48	6	8	8
31....	72	...	81	74	...	51	...	20	...	7	7	...
Total	1820	2330	2681	2500	2001	1892	757	450	638	620	365	379
Mean.	58.7	77.7	86.5	80.6	71.5	61.0	25.2	14.5	21.3	20.0	11.8	12.6
Max..	100	83	97	88	77	75	54	30	48	52	36	41
Min..	16	72	77	65	60	49	7	9	9	6	5	6
Acre-ft.	3610	4620	5320	4960	3970	3750	1500	892	1270	1230	726	750

Discharge of Big Grizzly Creek Near Walden for Year Ending Sept. 30, 1933.
Drainage Area 229 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	10	...	...	...	...	...	177	308	13	2	9
2....	2	12	...	...	...	...	...	175	327	13	3	8
3....	4	14	...	...	...	...	...	185	363	12	4	11
4....	4	15	...	...	...	...	...	159	298	12	6	8
5....	4	15	...	...	...	...	...	225	280	11	7	8
6....	5	16	...	...	...	...	...	295	318	11	7	6
7....	5	16	...	...	...	...	...	290	327	9	7	6
8....	5	18	...	...	...	...	...	290	300	10	8	5
9....	7	18	...	...	...	...	...	290	255	9	2	7
10....	8	20	...	...	...	...	...	288	245	10	11	8
11....	9	22	...	...	...	...	...	250	280	11	10	11
12....	9	22	...	...	...	...	...	200	300	11	9	16
13....	9	24	...	...	...	...	...	172	324	9	9	24
14....	5	25	...	...	...	...	...	150	300	8	8	17
15....	5	25	...	...	...	...	...	76	333	7	8	15
16....	9	25	...	...	...	...	...	96	308	8	8	14
17....	9	25	...	...	...	...	...	151	270	7	9	11
18....	9	25	...	...	...	...	...	292	242	10	9	9
19....	10	25	...	...	...	...	...	151	381	9	9	9
20....	10	25	...	...	...	...	...	117	474	7	9	9
21....	10	25	...	...	...	...	...	116	516	203	3	10
22....	10	25	...	...	...	...	...	120	435	149	4	10
23....	10	25	...	...	...	...	...	118	468	124	3	9
24....	10	25	...	...	...	...	...	117	302	94	2	8
25....	10	25	...	...	...	...	...	120	285	68	2	8
26....	10	25	...	...	...	...	...	169	282	53	2	12
27....	10	25	...	...	...	...	...	209	308	39	2	19
28....	10	25	...	...	...	...	...	193	339	27	1	23
29....	10	25	...	...	...	...	...	230	327	20	1	17
30....	10	25	...	...	...	...	...	175	318	16	1	15
31....	10	...	...	...	...	...	...	327	...	1	11	...
Total	242	647	...	...	...	...	...	8523	6727	219	256	342
Mean.	7.81	21.6	...	...	...	...	...	275	224	7.06	8.26	11.4
Max..	...	...	...	...	...	...	...	516	363	13	15	24
Min..	...	...	...	...	...	...	...	76	16	1	2	5
Acre-ft.	480	1290	...	...	...	...	...	16900	13300	434	508	678

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Big Grizzly Creek Near Walden for Year Ending Sept. 30, 1934.
Drainage Area, 229 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	10	....	....	....	....	....	56	5.6	0	0	0
2....	14	10	....	....	....	....	....	50	6.7	0	0	0
3....	15	10	....	....	....	....	....	42	8.9	0	0	0
4....	14	14	....	....	....	....	....	57	7.8	0	0	0
5....	12	14	....	....	....	....	....	77	5.6	0	0	0
6....	10	14	....	....	....	....	....	62	3.0	0	0	0
7....	11	16	....	....	....	....	....	55	1.7	0	0	0
8....	7.8	16	....	....	....	....	....	51	1.4	0	0	0
9....	11	14	....	....	....	....	....	46	1.7	0	0	0
10....	12	14	....	....	....	....	....	42	1.7	0	0	0
11....	12	15	....	....	....	....	....	40	1.6	0	0	0
12....	8.9	15	....	....	....	....	....	39	1.6	0	0	0
13....	8.9	15	....	....	....	....	....	37	1.6	0	0	0
14....	10	15	....	....	....	....	....	36	1.0	0	0	0
15....	8.9	15	....	....	....	....	....	34	0.5	0	0	0
16....	8.9	15	....	....	....	....	....	31	1.2	0	0	0
17....	10	15	....	....	....	....	....	22	0.6	0	0	0
18....	8.9	15	....	....	....	....	97	17	0.4	0	0	0
19....	7.8	15	....	....	....	....	80	14	0.4	0	0	0
20....	7.8	15	....	....	....	....	77	11	0	0	0	0
21....	8.9	16	....	....	....	....	76	7.8	0	0	0	0
22....	7.8	19	....	....	....	....	82	11	0	0	0	0
23....	7.8	18	....	....	....	....	84	12	0	0	0	0
24....	8.9	18	....	....	....	....	91	11	0	0	0	0
25....	10	18	....	....	....	....	95	10	0	0	0	0
26....	8.9	17	....	....	....	....	82	11	0	0	0	0
27....	8.9	17	....	....	....	....	84	6.7	0	0	0	0
28....	10	17	....	....	....	....	71	3.5	0	0	0	0
29....	8.9	17	....	....	....	....	68	3.5	0	0	0	0
30....	8.9	17	....	....	....	....	64	7.8	0	0	0	0
31....	8.9	....	....	....	....	....	....	7.8	....	0	0	....
Total	316.8	456	....	....	....	....	....	911.1	53.0	0	0	0
Mean.	10.2	15.2	....	....	....	....	....	29.4	1.77	0	0	0
Max...	20	19	....	....	....	....	....	77	8.9	0	0	0
Min...	7.8	10	....	....	....	....	....	3.5	0	0	0	0
Acre-ft.	628	904	....	....	....	....	....	1810	105	0	0	0

Discharge of Illinois Creek Near Rand for Year Ending Sept. 30, 1933.
Drainage Area, 76.7 Square Miles. Altitude, 8,600± Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	....	....	....	....	....	....	55	315	67	12	5
2....	6	....	....	....	....	....	....	55	360	58	12	5
3....	6	....	....	....	....	....	....	55	369	55	11	5
4....	6	....	....	....	....	....	....	55	320	116	9	4
5....	6	....	....	....	....	....	....	55	369	94	10	4
6....	6	....	....	....	....	....	....	65	396	71	9	4
7....	6	....	....	....	....	....	....	65	428	75	9	4
8....	6	....	....	....	....	....	....	65	249	78	9	5
9....	7	....	....	....	....	....	....	65	217	58	9	6
10....	8	....	....	....	....	....	....	65	272	38	8	8
11....	8	....	....	....	....	....	....	65	356	34	6	10
12....	8	....	....	....	....	....	....	67	351	34	6	29
13....	8	....	....	....	....	....	....	67	320	27	5	16
14....	8	....	....	....	....	....	....	67	333	25	4	17
15....	8	7	....	....	....	....	....	61	272	25	4	16
16....	6	....	....	....	....	....	....	71	252	19	6	14
17....	6	....	....	....	....	....	....	67	249	17	5	11
18....	7	....	....	....	....	....	22	110	265	17	5	10
19....	8	....	....	....	....	....	....	144	252	17	6	10
20....	6	....	....	....	....	....	....	174	236	17	7	8
21....	7	....	....	....	....	....	....	116	214	16	6	8
22....	10	....	....	....	....	....	....	105	201	16	6	8
23....	8	....	....	....	....	....	....	149	160	15	7	10
24....	8	....	....	....	....	....	....	114	128	13	6	10
25....	8	....	....	....	....	....	....	97	110	12	5	9
26....	8	....	....	....	....	....	....	116	230	11	6	31
27....	8	....	....	....	....	....	....	141	71	9	8	27
28....	8	....	....	....	....	....	....	182	90	8	9	17
29....	8	....	....	....	....	....	....	220	94	8	8	13
30....	8	....	....	....	....	....	....	255	75	9	8	12
31....	8	....	....	....	....	....	....	342	....	11	5	....
Total	226	....	....	....	....	....	....	3330	7554	1070	226	336
Mean.	7.29	....	....	....	....	....	....	107	252	34.5	7.29	11.2
Max...	....	....	....	....	....	....	....	342	428	116	12	31
Min...	....	....	....	....	....	....	....	....	71	8	4	4
Acre-ft.	448	....	....	....	....	....	....	6580	15000	2120	448	666

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Illinois Creek Near Rand for Year Ending Sept. 30, 1934.
Drainage Area, 76.7 Square Miles. Altitude, 8,600± Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	11	6.5	....	....	....	....	....	24	67	9.0	4.3	1.5
2....	9.5	8.0	....	....	....	....	....	34	60	8.0	3.6	1.4
3....	9.0	7.5	....	....	....	....	....	43	45	7.5	4.0	1.3
4....	9.5	....	....	....	....	....	....	56	43	8.5	4.6	1.4
5....	9.5	....	....	....	....	....	....	56	40	12	4.3	1.4
6....	9.5	....	....	....	....	....	....	60	42	14	5.0	1.5
7....	9.5	....	....	....	....	....	....	70	39	9.5	4.0	1.5
8....	9.0	....	....	....	....	....	....	86	35	8.0	4.0	2.9
9....	8.5	....	....	....	....	....	....	80	35	5.5	4.0	4.3
10....	8.5	....	....	....	....	....	....	92	33	6.0	3.6	5.0
11....	8.0	....	....	....	....	....	40	86	29	6.0	3.6	5.5
12....	8.0	....	....	....	....	....	30	103	27	5.5	3.6	4.6
13....	8.0	....	....	....	....	....	27	99	24	5.0	3.2	4.0
14....	8.5	....	....	....	....	....	26	95	26	4.6	3.2	3.2
15....	8.5	....	....	....	....	....	23	92	28	4.0	3.2	2.9
16....	8.0	....	....	....	....	....	17	89	29	3.6	3.2	2.9
17....	8.0	....	....	....	....	....	16	86	29	3.6	3.2	2.9
18....	8.0	....	....	....	....	....	15	89	24	3.6	3.6	2.9
19....	8.0	....	....	....	....	....	17	92	19	4.0	3.2	2.9
20....	8.0	....	....	....	....	....	16	92	18	4.6	3.6	3.6
21....	9.0	....	....	....	....	....	20	83	16	7.0	3.2	5.0
22....	7.5	....	....	....	....	....	23	80	16	9.5	3.2	6.0
23....	7.5	....	....	....	....	....	24	86	15	8.0	2.6	4.6
24....	7.0	....	....	....	....	....	30	83	12	8.0	2.2	4.3
25....	7.0	....	....	....	....	....	29	73	16	14	1.8	5.5
26....	7.0	....	....	....	....	....	35	64	15	12	1.4	8.5
27....	7.0	....	....	....	....	....	28	60	12	9.0	1.5	8.0
28....	7.5	....	....	....	....	....	27	58	10	6.5	1.5	8.5
29....	6.5	....	....	....	....	....	24	60	9.5	5.0	1.5	9.0
30....	6.0	....	....	....	....	....	21	70	10	4.3	1.5	8.5
31....	5.5	....	....	....	....	....	....	80	....	4.3	1.5	....
Total	252.0	....	....	....	....	....	....	2321	823.5	220.1	96.9	125.5
Mean.	8.13	....	....	....	....	....	....	74.9	27.4	7.10	3.13	4.18
Max..	11	....	....	....	....	....	....	103	67	14	5.0	9.0
Min..	5.5	....	....	....	....	....	....	24	9.5	3.6	1.4	1.3
Acre-ft.	500	....	....	....	....	....	....	4600	1630	437	192	249

Discharge of Illinois Creek Near Walden for Year Ending Sept. 30, 1933.
Drainage Area, 254 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	8	....	....	....	....	....	110	125	17	12	4
2....	4	8	....	....	....	....	....	115	152	14	14	3
3....	5	....	....	....	....	....	....	129	191	9	16	2
4....	3	....	....	....	....	....	....	108	240	10	14	2
5....	3	....	....	....	....	....	....	108	234	10	14	2
6....	3	....	....	....	....	....	....	115	200	9	14	2
7....	4	....	....	....	....	....	....	106	255	9	10	2
8....	4	....	....	....	....	....	....	113	288	9	11	1
9....	4	....	....	....	....	....	....	46	320	14	16	1
10....	7	....	....	....	....	....	....	36	174	13	16	2
11....	7	....	....	....	....	....	....	48	160	10	14	3
12....	8	....	....	....	....	....	....	37	200	10	10	9
13....	6	....	....	....	....	....	....	34	258	9	10	10
14....	4	....	....	....	....	....	....	38	261	9	5	10
15....	4	....	....	....	....	....	....	42	282	7	5	9
16....	4	....	....	....	....	....	....	37	285	7	2	6
17....	4	....	....	....	....	....	....	66	234	7	2	6
18....	4	....	....	....	....	....	....	78	34	240	9	2
19....	5	....	....	....	....	....	....	113	32	267	9	2
20....	5	....	....	....	....	....	....	90	32	255	6	2
21....	6	....	....	....	....	....	....	60	36	208	6	2
22....	6	....	....	....	....	....	....	45	51	191	5	2
23....	7	....	....	....	....	....	....	49	91	176	5	2
24....	8	....	....	....	....	....	....	71	65	167	4	2
25....	8	....	....	....	....	....	....	104	52	154	4	2
26....	7	....	....	....	....	....	....	152	34	100	3	2
27....	8	....	....	....	....	....	....	133	22	68	3	2
28....	9	....	....	....	....	....	....	176	25	52	3	3
29....	8	....	....	....	....	....	....	202	37	49	3	3
30....	8	....	....	....	....	....	....	174	65	26	3	3
31....	8	....	....	....	....	....	....	....	98	....	6	4
Total	175	....	....	....	....	....	....	1932	5812	242	218	155
Mean.	5.65	....	....	....	....	....	....	62.3	194	7.81	7.03	5.17
Max..	9	....	....	....	....	....	....	129	320	17	16	11
Min..	3	....	....	....	....	....	....	22	26	3	2	1
Acre-ft.	347	....	....	....	....	....	....	3830	11500	480	432	303

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Illinois Creek Near Walden for Year Ending Sept. 30, 1934.
Drainage Area, 254 Square Miles. Altitude, 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4.9	5.5	....	....	....	....	56	1.4	1.9	0	0.1	0
2....	3.8	5.5	....	....	....	....	24	1.2	1.7	0	0.1	0
3....	4.9	4.9	....	....	....	....	35	2.2	1.7	0	0.1	0
4....	6.2	4.9	....	....	....	....	26	2.0	1.9	0	0	0
5....	6.2	4.9	....	....	....	....	27	1.5	1.9	0.1	0	0
6....	6.2	4.9	....	....	....	....	26	0.9	1.7	0	0	0
7....	6.2	3.8	....	....	....	....	22	0.9	1.7	0	0	0
8....	5.5	3.8	....	....	....	....	24	0.8	1.4	0	0.2	0
9....	5.5	3.8	....	....	....	....	32	0.8	1.4	0	0.2	0
10....	6.2	3.8	....	....	....	....	38	0.6	1.2	0	0.5	0
11....	6.2	3.8	....	....	....	....	36	0.5	1.1	0	0.5	0
12....	4.9	4	....	....	....	....	29	0.4	1.0	0	0.4	0
13....	4.9	4	....	....	....	....	26	0.5	0.8	0	0.2	0
14....	4.9	4	....	....	....	....	22	0.5	0.8	0	0.2	0
15....	4.9	4	....	....	....	....	17	0.9	0.8	0	0.2	0
16....	4.9	6	....	....	....	....	19	0.5	0.6	0.1	0.2	0
17....	4.9	6	....	....	....	....	16	0.5	1.1	0.1	0.1	0
18....	3.8	6	....	....	....	....	12	0.4	1.2	0.1	0.1	0
19....	3.8	6	....	....	....	....	13	0.4	1.2	0	0.2	0
20....	3.8	6	....	....	....	....	9	0.4	0.6	0	0.2	0
21....	4.4	6	....	....	....	....	69	0.4	0.4	0.1	0.2	0
22....	5.5	6	....	....	....	....	4.9	0.4	0.4	0.1	0	0
23....	5.5	6	....	....	....	....	4.4	0.5	0.2	0.2	0	0
24....	6.2	6	....	....	....	....	4.9	0.5	0.2	0.2	0	0.1
25....	5.8	6	....	....	....	....	4.1	1.1	0.2	0.2	0	0.1
26....	5.5	6	....	....	....	....	3.0	1.2	0.2	0.6	0	0.1
27....	5.5	6	....	....	....	....	2.4	0.8	0.2	0.6	0	0.1
28....	5.5	6	....	....	....	....	2.4	0.8	0.1	0.5	0	0.1
29....	5.5	6	....	....	....	....	1.8	1.2	0.1	0.2	0	0.1
30....	4.9	6	....	....	....	....	1.4	1.7	0	0.2	0	0
31....	4.9	....	....	....	....	....	....	1.9	....	0.2	0	....
Total	161.8	155.6	....	....	....	....	545.2	27.8	27.7	3.5	3.7	0.6
Mean.	5.22	5.19	....	....	....	....	18.2	0.90	0.92	0.11	12	.02
Max..	6.2	....	....	....	....	....	56	2.2	1.9	0.6	0.5	0.1
Min...	3.8	3.8	....	....	....	....	1.4	0.4	0	0	0	0
Acre-ft.	321	309	....	....	....	....	1080	55	55	6.9	7.3	1.2

Discharge of Little Grizzly Creek at Mouth Near Hebron for Year Ending Sept. 30, 1933.
Drainage Area, 96 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	32	....	....	....	....	....	200	318	154	10	1
2....	7	32	....	....	....	....	....	154	350	128	10	1
3....	7	37	....	....	....	....	....	172	382	104	9	1
4....	7	32	....	....	....	....	....	145	414	89	10	1
5....	7	32	....	....	....	....	....	154	436	89	12	1
6....	6	37	....	....	....	....	....	190	414	76	10	1
7....	6	37	....	....	....	....	....	119	371	89	14	1
8....	14	37	....	....	....	....	....	128	382	70	14	1
9....	34	38	....	....	....	....	....	96	414	70	14	1
10....	23	44	....	....	....	....	....	104	436	64	10	1
11....	13	32	....	....	....	....	....	96	458	57	10	1
12....	13	32	....	....	....	....	....	82	458	34	11	1
13....	13	26	....	....	....	....	....	89	480	30	16	2
14....	13	26	....	....	....	....	....	104	502	44	14	3
15....	13	21	....	....	....	....	....	128	480	40	14	8
16....	8	18	....	....	....	....	....	136	480	36	14	6
17....	12	....	....	....	....	....	....	128	513	34	16	6
18....	16	....	....	....	....	....	....	200	502	30	18	8
19....	16	....	....	....	....	....	....	119	209	480	22	16
20....	16	....	....	....	....	....	....	104	228	414	24	14
21....	12	....	....	....	....	....	....	89	218	392	21	18
22....	12	....	....	....	....	....	....	119	248	350	10	14
23....	12	....	....	....	....	....	....	136	190	329	2	8
24....	16	....	....	....	....	....	....	154	172	288	3	8
25....	16	....	....	....	....	....	....	154	190	258	6	8
26....	21	....	....	....	....	....	....	172	181	228	9	18
27....	26	....	....	....	....	....	....	154	218	209	10	18
28....	26	....	....	....	....	....	....	163	268	190	10	14
29....	26	....	....	....	....	....	....	209	268	181	9	10
30....	26	....	....	....	....	....	....	172	278	172	10	3
31....	32	....	....	....	....	....	....	....	288	....	14	1
Total	476	....	....	....	....	....	....	5381	11281	1388	376	289
Mean.	15.4	....	....	....	....	....	....	174	376	44.8	12.1	9.63
Max..	34	....	....	....	....	....	....	288	513	154	18	40
Min...	6	....	....	....	....	....	....	82	172	2	1	1
Acre-ft.	947	....	....	....	....	....	....	10700	22400	2750	744	573

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Little Grizzly Creek at Mouth Near Hebron for Year Ending Sept. 30, 1934.
Drainage Area, 96 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	9.2	11	....	....	....	27	32	52	0.3	0	0
2....	17	9.2	14	....	....	....	30	40	39	0.3	0	0
3....	17	9.2	....	....	....	....	37	100	22	0.2	0	0
4....	13	11	....	....	....	....	43	112	25	0.2	0	0
5....	15	11	....	....	....	....	49	55	17	0.1	0	0
6....	17	11	....	....	....	....	40	100	15	0.1	0	0
7....	17	9.2	....	....	....	....	48	122	16	0.1	0	0
8....	17	7.8	....	....	....	....	55	146	11	0	0	0
9....	13	7.8	....	....	....	....	100	166	6.8	0	0	0
10....	15	7.8	....	....	....	....	120	174	2.8	0	0	0
11....	12	7.8	....	....	....	....	100	182	1.3	0	0	0
12....	12	9.2	....	....	....	....	126	174	1.3	0	0	0
13....	12	7.8	....	....	....	....	120	174	0.8	0	0	0
14....	8.5	7.8	....	....	....	....	81	120	0.9	0	0	0
15....	7.3	6.8	....	....	....	....	81	76	0.8	0	0	0
16....	7.3	6.8	....	....	....	....	81	86	0.8	0	0	0
17....	7.3	7.8	....	....	....	....	69	106	2.8	0	0	0
18....	7.3	7.8	....	....	....	....	81	126	1.3	0	0	0
19....	7.3	6.8	....	....	....	....	81	134	1.0	0	0	0
20....	7.3	6.8	....	....	....	....	65	130	0.8	0	0	0
21....	7.8	7.8	....	....	....	....	64	126	0.8	0	0	0
22....	6.8	9.2	....	....	....	....	72	100	0.8	0	0	0
23....	6.8	9.2	....	....	....	....	81	86	0.8	0	0	0
24....	6.8	11	....	....	....	....	83	94	0.8	0	0	0
25....	7.8	11	....	....	....	....	81	81	0.8	0	0	0
26....	7.8	11	....	....	....	....	48	72	0.9	0	0	0
27....	7.8	9.2	....	....	....	....	40	100	1.1	0	0	0
28....	9.2	7.8	....	....	....	....	36	110	0.9	0	0	0
29....	7.8	7.8	....	....	....	....	35	154	0.6	0	0	0
30....	7.8	7.8	....	....	....	....	30	170	0.6	0	0	0
31....	7.8	....	....	....	....	....	....	120	....	0	0	0
Total	330.5	260.4	....	....	....	....	1995	3568	226.5	1.3	0	....
Mean.	10.7	8.68	....	....	....	....	66.5	115	7.55	.04	0	0
Max..	17	11	....	....	....	....	126	182	52	0.3	0	0
Min...	6.8	6.8	....	....	....	....	27	32	0.6	0	0	0
Acre-ft.	656	516	....	....	....	....	3960	7080	449	2.6	0	0

Discharge of Michigan River Near Lindland for Year Ending Sept. 30, 1933.
Drainage Area 61.9 Square Miles. Altitude 8,800± Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	16	....	....	....	....	....	....	372	118	24	21
2....	12	18	....	....	....	....	....	....	375	109	25	20
3....	11	13	....	....	....	....	....	....	342	109	32	20
4....	11	18	....	....	....	....	....	....	369	114	23	20
5....	12	25	....	....	....	....	....	....	450	98	24	20
6....	12	13	....	....	....	....	....	....	471	92	26	15
7....	16	17	....	....	....	....	....	....	171	417	98	12
8....	18	28	....	....	....	....	....	....	169	304	95	17
9....	18	12	....	....	....	....	....	....	165	330	79	18
10....	12	16	....	....	....	....	....	....	167	450	69	18
11....	15	8	....	....	....	....	....	....	165	514	65	19
12....	19	....	....	....	....	....	....	....	165	487	68	18
13....	21	....	....	....	....	....	....	....	165	500	66	18
14....	16	....	....	....	....	....	....	....	163	487	65	15
15....	12	10	....	....	....	....	....	....	122	426	66	16
16....	11	....	....	....	....	....	....	....	120	420	62	18
17....	9	....	....	....	....	....	....	....	120	447	60	18
18....	12	....	....	....	....	....	....	....	82	432	55	16
19....	11	....	....	....	....	....	....	....	90	411	52	20
20....	16	....	....	....	....	....	....	....	116	450	38	24
21....	13	....	....	....	....	....	....	....	153	387	31	18
22....	19	....	....	....	....	....	....	....	159	293	25	20
23....	14	....	....	....	....	....	....	....	112	247	21	18
24....	14	....	....	....	....	....	....	....	107	204	14	17
25....	12	....	....	....	....	....	....	....	116	184	10	18
26....	4	....	....	....	....	....	....	....	135	177	11	21
27....	4	....	....	....	....	....	....	....	188	163	11	24
28....	5	....	....	....	....	....	....	....	188	153	12	24
29....	12	....	....	....	....	....	....	....	230	143	17	22
30....	15	10	....	....	....	....	....	....	282	137	17	20
31....	19	....	....	....	....	....	....	....	342	....	22	21
Total	407	....	....	....	....	....	....	....	10542	1769	655	616
Mean.	13.1	12.5	....	....	....	....	....	....	160	351	57.1	20.5
Max..	21	....	....	....	....	....	....	....	....	514	118	32
Min...	4	....	....	....	....	....	....	....	....	137	11	12
Acre-ft.	806	744	....	....	....	....	....	....	9840	20900	3510	1300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Michigan River Near Lindland for Year Ending Sept. 30, 1934.
Drainage Area 61.9 Square Miles. Altitude 8,800± Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	23	14	....	....	....	....	7.2	29	67	37	15	14
2....	21	13	....	....	....	....	6.4	30	54	34	12	13
3....	19	16	....	....	....	....	6.0	31	47	29	11	14
4....	20	19	....	....	....	....	7.2	35	45	31	19	12
5....	21	23	....	....	....	....	7.2	37	45	35	25	10
6....	14	25	....	....	....	....	8.0	36	48	30	26	11
7....	13	15	....	....	....	....	10	54	60	29	22	9.2
8....	12	19	....	....	....	....	10	83	52	23	20	14
9....	10	14	....	....	....	....	10	89	51	23	22	19
10....	12	16	....	....	....	....	9.6	95	41	21	23	16
11....	14	16	....	....	....	....	17	91	29	20	26	15
12....	15	14	....	....	....	....	20	100	32	17	24	14
13....	18	14	....	....	....	....	21	83	38	16	28	12
14....	15	16	....	....	....	....	20	60	41	15	23	11
15....	14	19	....	....	....	....	18	56	43	14	24	11
16....	14	19	....	....	....	....	14	59	48	13	23	10
17....	14	13	....	....	....	....	14	63	46	13	20	8.4
18....	14	19	....	....	....	....	19	77	41	14	20	8.4
19....	15	19	....	....	....	....	21	94	41	13	21	8.4
20....	12	16	....	....	....	....	24	87	41	14	23	11
21....	13	16	....	....	....	....	32	86	44	14	20	12
22....	12	9.2	....	....	....	....	33	83	44	14	20	11
23....	10	9.6	....	....	....	....	35	77	42	16	19	10
24....	10	9.6	....	....	....	....	44	67	44	15	19	8.8
25....	10	9.2	....	....	....	....	47	67	47	16	19	11
26....	10	9.2	....	....	....	....	41	67	45	16	18	11
27....	8.8	9.0	....	....	....	....	33	65	41	18	18	11
28....	7.6	9.2	....	....	....	....	35	61	38	18	18	11
29....	6.4	9.2	....	....	....	....	32	66	37	15	18	11
30....	7.2	9.2	....	....	....	....	30	80	38	14	17	10
31....	10	....	....	....	....	....	....	100	....	14	14	....
Total	414.0	438.4	....	....	....	....	631.6	2108	1330	611	627	348.2
Mean.	13.4	14.6	....	....	....	....	21.1	68.0	44.3	19.7	20.2	11.6
Max..	23	25	....	....	....	....	47	100	67	37	28	19
Min..	6.4	9.0	....	....	....	....	6.0	29	29	13	11	8.4
Acre-ft.	821	870	....	....	....	....	1250	4180	2640	1210	1240	691

Discharge of Michigan River Near Walden for Year Ending Sept. 30, 1933.
Drainage Area, 185 Square Miles. Altitude 8,044.87 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	29	....	....	....	....	....	135	308	59	26	18
2....	19	28	....	....	....	....	....	116	340	41	37	18
3....	18	31	....	....	....	....	....	112	389	37	31	14
4....	19	33	....	....	....	....	....	111	368	39	28	12
5....	18	32	....	....	....	....	....	111	348	44	29	14
6....	18	27	....	....	....	....	....	101	416	56	34	13
7....	18	24	....	....	....	....	....	84	474	80	40	11
8....	16	25	....	....	....	....	....	74	474	177	40	12
9....	19	26	....	....	....	....	....	59	389	144	38	16
10....	24	25	....	....	....	....	....	61	348	83	34	20
11....	26	24	....	....	....	....	....	59	394	59	26	32
12....	27	26	....	....	....	....	....	48	484	52	22	45
13....	26	26	....	....	....	....	....	47	540	41	20	43
14....	26	....	....	....	....	....	....	46	565	34	17	33
15....	27	30	....	....	....	....	....	35	545	42	16	26
16....	26	....	....	....	....	....	....	35	506	41	14	26
17....	23	....	....	....	....	....	....	84	44	479	40	11
18....	23	....	....	....	....	....	....	126	54	456	44	12
19....	26	....	....	....	....	....	....	126	112	479	32	23
20....	26	....	....	....	....	....	....	63	164	479	23	24
21....	24	....	....	....	....	....	....	54	186	488	18	20
22....	31	....	....	....	....	....	....	59	218	438	17	20
23....	32	....	....	....	....	....	....	63	209	368	15	21
24....	31	....	....	....	....	....	....	88	144	328	12	18
25....	30	....	....	....	....	....	....	118	98	252	11	14
26....	29	....	....	....	....	....	....	140	78	197	11	18
27....	28	....	....	....	....	....	....	118	74	164	10	19
28....	28	....	....	....	....	....	....	131	91	137	9	27
29....	26	....	....	....	....	....	....	183	144	112	12	34
30....	28	....	....	....	....	....	....	175	194	82	13	28
31....	28	....	....	....	....	....	....	....	244	....	12	22
Total	760	....	....	....	....	....	....	3288	11347	1308	763	737
Mean.	24.5	....	....	....	....	....	....	106	378	42.2	24.6	24.6
Max..	32	....	....	....	....	....	....	244	565	177	40	46
Min..	16	....	....	....	....	....	....	35	82	9	11	11
Acre-ft.	1510	....	....	....	....	....	....	6520	22500	2590	1510	1460

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Michigan River Near Walden for Year Ending Sept. 30, 1934.
Drainage Area, 185 Square Miles. Altitude 8,044.87 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	33	22	....	....	....	....	....	6.0	110	4.4	3.3	3.9
2....	32	25	....	....	....	....	....	7.6	70	3.6	3.2	4.0
3....	32	20	....	....	....	....	....	10.0	47	3.4	2.8	4.4
4....	32	20	....	....	....	....	....	9.4	34	4.0	2.6	4.5
5....	32	20	....	....	....	....	....	8.8	42	3.8	2.9	4.5
6....	30	22	....	....	....	....	....	7.6	53	2.9	4.8	4.8
7....	29	22	....	....	....	....	....	7.0	58	2.8	8.2	5.0
8....	26	22	....	....	....	....	....	7.0	62	3.3	9.7	6.5
9....	24	22	....	....	....	....	....	14	55	6.0	11	8.2
10....	24	22	....	....	....	....	....	22	24	6.2	14	8.2
11....	24	26	....	....	....	....	....	23	13	6.0	16	6.8
12....	24	26	....	....	....	....	....	36	8.8	4.8	15	6.5
13....	24	26	....	....	....	....	....	40	6.0	3.3	13	6.0
14....	25	26	....	....	....	....	....	44	4.8	2.8	13	5.2
15....	24	26	....	....	....	....	....	51	4.5	2.4	16	6.5
16....	22	24	....	....	....	....	....	51	4.4	2.1	18	5.2
17....	22	24	....	....	....	....	....	31	4.5	2.0	16	4.4
18....	22	24	....	....	....	....	....	36	3.6	2.0	13	4.4
19....	23	24	....	....	....	....	18	41	2.9	2.0	12	4.5
20....	22	24	....	....	....	....	....	70	2.8	2.0	13	4.5
21....	22	24	....	....	....	....	....	75	2.8	2.1	13	4.5
22....	22	25	....	....	....	....	....	67	2.7	2.5	12	4.5
23....	21	26	....	....	....	....	....	59	4.0	2.7	9.4	5.2
24....	21	26	....	....	....	....	....	56	8.2	2.7	7.9	4.5
25....	21	26	....	....	....	....	....	51	12	2.8	7.6	5.8
26....	21	26	....	....	....	....	....	44	13	3.9	6.8	7.0
27....	20	26	....	....	....	....	....	44	11	4.5	5.8	7.6
28....	21	26	....	....	....	....	....	49	7.6	5.5	4.8	8.2
29....	20	26	....	....	....	....	....	53	7.3	5.5	4.5	12
30....	20	26	....	....	....	....	....	84	6.0	4.8	4.5	14
31....	20	....	....	....	....	....	....	124	....	4.0	4.4	....
Total	755	724	....	....	....	....	....	1222	684.9	110.8	288.2	181.3
Mean.	24.4	24.1	....	....	....	....	....	39.4	22.6	3.57	9.3	6.04
Max..	33	....	....	....	....	....	....	124	110	6.2	18	14
Min..	20	....	....	....	....	....	....	6.0	2.7	2.0	2.6	3.9
Acre-ft.	1500	1490	....	....	....	....	....	2420	1360	220	572	360

Discharge of North Platte River Near Walden for Year Ending Sept. 30, 1933.
Drainage Area 446 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	....	....	....	....	....	....	470	910	228	130	51
2....	31	....	....	....	....	....	....	494	990	172	128	47
3....	30	....	....	....	....	....	....	506	1030	150	106	45
4....	30	....	....	....	....	....	....	490	1010	138	86	38
5....	30	....	....	....	....	....	....	514	1000	128	72	35
6....	27	100	....	....	....	....	....	564	1120	110	70	33
7....	25	106	....	....	....	....	....	466	1200	94	68	31
8....	25	96	....	....	....	....	....	367	1120	96	80	31
9....	28	92	....	....	....	....	....	238	950	90	80	32
10....	43	90	....	....	....	....	....	208	915	76	72	34
11....	46	86	....	....	....	....	....	170	1090	64	72	50
12....	47	84	....	....	....	....	....	220	1170	64	64	97
13....	47	85	....	....	....	....	....	220	1260	58	55	97
14....	48	....	....	....	....	....	....	232	1300	53	54	80
15....	49	....	....	....	....	....	....	247	1340	53	55	62
16....	48	44	....	....	....	....	....	265	1340	52	55	54
17....	45	....	....	....	....	....	....	319	1340	53	55	50
18....	43	....	....	....	....	....	....	434	1310	53	55	47
19....	44	....	....	....	....	....	301	613	1360	53	51	45
20....	45	....	....	....	....	....	263	319	1320	56	52	43
21....	54	....	....	....	....	....	260	307	1120	53	52	40
22....	56	....	....	....	....	....	260	322	890	51	53	42
23....	56	....	....	....	....	....	238	343	925	74	48	42
24....	58	....	....	....	....	....	225	430	740	72	44	38
25....	56	....	....	....	....	....	250	482	608	70	42	35
26....	60	....	....	....	....	....	390	482	530	60	40	62
27....	64	....	....	....	....	....	422	530	454	61	52	90
28....	76	....	....	....	....	....	482	604	398	64	60	55
29....	70	....	....	....	....	....	577	631	355	73	66	55
30....	72	....	....	....	....	....	506	626	292	73	61	55
31....	61	....	....	....	....	....	....	780	....	78	54	....
Total	1446	....	....	....	....	....	....	12893	29387	2570	2032	1516
Mean.	46.6	....	....	....	....	....	....	416	980	82.9	65.5	50.5
Max..	76	....	....	....	....	....	....	780	1360	228	130	97
Min..	25	....	....	....	....	....	....	170	292	51	40	31
Acre-ft.	2870	....	....	....	....	....	....	25600	58300	5100	4030	3000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Platte River Near Walden for Year Ending Sept. 30, 1934.
Drainage Area 446 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	57	34	....	....	....	....	156	104	226	11	19	17
2....	59	36	....	....	....	....	138	108	165	11	18	18
3....	56	38	....	....	....	....	132	180	130	11	17	17
4....	54	43	....	....	....	....	110	189	108	11	17	18
5....	54	42	....	....	....	....	100	145	82	11	19	19
6....	54	42	....	....	....	....	94	180	68	11	22	22
7....	54	43	....	....	....	....	90	259	61	11	21	22
8....	54	43	....	....	....	....	90	306	56	11	22	23
9....	55	43	....	....	....	....	117	322	53	11	30	15
10....	56	44	....	....	....	....	121	322	50	11	30	11
11....	58	47	....	....	....	....	141	296	46	8.2	29	13
12....	54	45	....	....	....	....	176	325	42	11	25	12
13....	53	30	....	....	....	....	191	388	38	8.8	22	11
14....	51	30	....	....	....	....	212	322	35	8.8	22	9.4
15....	50	30	....	....	....	....	268	214	32	8.2	27	11
16....	47	28	....	....	....	....	249	174	29	7.6	27	8.2
17....	43	28	....	....	....	....	207	182	28	8.2	23	7.6
18....	43	28	....	....	....	....	185	217	27	7.6	23	6.4
19....	43	28	....	....	....	....	178	252	26	7.0	21	5.2
20....	39	28	....	....	....	....	169	270	25	7.0	25	5.2
21....	37	30	....	....	....	....	185	273	23	7.6	25	7.0
22....	38	30	....	....	....	....	187	259	22	7.6	23	8.2
23....	38	30	....	....	....	....	198	257	21	8.8	19	7.0
24....	37	30	....	....	....	....	203	234	20	13	18	6.4
25....	36	30	....	....	....	....	214	236	18	15	16	8.8
26....	35	28	....	....	....	123	217	219	16	31	15	11
27....	34	28	....	....	....	138	165	214	15	20	12	11
28....	34	28	....	....	....	147	134	205	14	16	13	10
29....	34	28	....	....	....	156	125	210	12	14	13	9.4
30....	34	28	....	....	....	167	115	363	11	14	14	7.0
31....	34	....	....	....	....	174	....	336	....	14	15	....
Total	1425	1020	....	....	....	....	4867	7561	1499	353.4	642	356.8
Mean.	46.0	34.0	....	....	....	....	162	244	50.0	11.4	20.7	11.9
Max..	59	47	....	....	....	....	268	388	226	31	30	23
Min..	34	....	....	....	....	....	90	104	11	7	12	5.2
Acro-ft.	2830	2020	....	....	....	....	9650	15000	2970	701	1270	708

Discharge of North Platte River Near Northgate for Year Ending Sept. 30, 1933.
Drainage Area, 1,440 Square Miles. Altitude, 7,600 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	107	145	145	58	40	65	300	908	1300	454	266	110
2....	102	184	145	58	40	65	300	881	1520	369	364	94
3....	94	184	145	58	40	65	300	856	1880	312	337	89
4....	92	200	145	58	40	65	300	821	1970	283	288	80
5....	97	191	145	58	40	65	300	781	1890	292	248	75
6....	99	191	85	55	33	95	250	813	2090	292	225	68
7....	94	184	85	54	33	95	250	838	2400	279	221	63
8....	94	184	85	54	33	95	250	624	2530	322	229	63
9....	102	184	85	54	33	95	250	562	2210	385	244	70
10....	123	188	85	54	33	95	250	516	1880	374	218	82
11....	145	160	50	50	30	130	195	473	2140	322	200	115
12....	154	160	50	50	30	130	195	413	2460	297	184	207
13....	157	160	50	50	30	130	195	369	2810	266	163	237
14....	154	160	50	50	30	130	195	413	2830	237	145	200
15....	145	160	50	50	30	130	195	454	2780	240	137	175
16....	140	177	60	45	30	125	200	491	2860	252	128	145
17....	140	180	60	45	30	125	200	510	2700	244	128	134
18....	137	180	60	45	30	125	200	542	2680	233	126	123
19....	140	180	60	45	30	125	200	689	2670	221	134	112
20....	154	180	60	45	30	125	200	788	2850	214	154	117
21....	154	170	60	42	40	125	300	890	2500	229	157	115
22....	166	170	60	42	40	125	300	1070	2050	221	145	117
23....	178	170	60	42	40	125	300	1180	1850	233	137	120
24....	175	170	60	42	40	125	300	1040	1690	240	126	115
25....	175	170	60	42	40	125	300	873	1400	214	112	112
26....	172	155	60	42	45	185	900	711	1160	204	110	123
27....	166	155	60	42	45	185	900	659	990	184	120	210
28....	184	155	60	42	45	185	900	719	813	175	157	225
29....	188	155	60	42	....	185	900	804	682	169	172	204
30....	184	155	60	42	....	185	900	873	582	172	163	194
31....	181	....	60	42	....	185	....	1050	....	184	134	....
Total	4393	5157	2360	1498	1000	3810	10725	22611	60067	8113	5672	3894
Mean.	142	172	76.1	48.3	35.7	123	358	729	2000	262	183	130
Max..	188	200	....	....	....	....	....	1180	2860	454	364	237
Min..	92	145	....	....	....	....	....	369	582	169	110	63
Acro-ft.	8730	10200	4680	2970	1980	7560	21300	44800	119000	16100	11300	7740

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Platte River Near Northgate for Year Ending Sept. 30, 1934.
Drainage Area, 1,440 Square Miles. Altitude, 7,600 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	178	107	104	83	84	108	374	142	385	25	34	24
2....	169	117	102	83	84	108	342	142	270	26	35	26
3....	160	120	80	83	84	108	322	154	207	25	37	25
4....	148	110	80	83	84	108	222	178	184	22	35	25
5....	142	87	80	83	84	108	230	240	166	23	34	23
6....	137	87	110	67	84	108	245	188	145	23	37	25
7....	137	127	110	67	84	108	248	169	134	23	39	24
8....	131	134	110	67	84	108	248	210	112	22	37	24
9....	128	138	110	67	84	108	327	270	99	22	43	24
10....	128	142	110	67	84	108	374	307	84	22	64	25
11....	126	194	106	62	95	157	408	317	75	23	62	28
12....	123	163	106	65	105	157	448	297	66	22	54	25
13....	120	134	106	65	113	157	485	353	64	23	46	24
14....	117	117	106	65	115	157	523	413	60	22	39	22
15....	115	115	106	65	110	157	497	312	58	20	47	21
16....	115	104	86	65	93	157	479	240	77	20	56	21
17....	117	106	86	65	93	157	419	214	60	19	43	22
18....	110	112	86	65	93	157	347	218	50	19	37	22
19....	104	95	86	65	93	157	322	248	43	19	35	21
20....	102	97	86	65	93	157	288	283	37	20	39	22
21....	99	123	106	78	87	246	274	312	33	21	42	22
22....	102	125	106	78	87	246	274	312	26	21	42	21
23....	102	130	106	78	87	246	279	307	31	24	35	21
24....	104	142	106	78	87	246	279	312	32	42	33	21
25....	104	115	106	78	87	246	283	342	35	39	31	21
26....	110	108	106	73	87	246	248	332	39	46	29	22
27....	110	110	106	73	87	307	221	347	31	49	28	25
28....	110	125	106	73	87	332	197	352	27	39	27	29
29....	110	115	106	73	....	353	163	327	27	37	25	29
30....	107	108	106	73	....	380	148	425	25	36	25	29
31....	104	....	106	73	....	419	....	549	....	34	25	....
Total	3769	3607	3122	2225	2539	5917	9514	8813	2682	828	1195	713
Mean.	122	120	101	71.8	90.7	191	317	284	89.4	26.7	38.6	23.8
Max..	178	194	110	83	115	419	523	549	385	49	64	29
Min...	99	87	80	62	84	108	148	142	25	19	25	21
Acre-ft.	7480	7150	6190	4410	5040	11740	18870	17480	5320	1640	2370	1410

Discharge of Roaring Fork Near Walden for Year Ending Sept. 30, 1933.
Drainage Area, 84 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	24	....	....	....	....	....	87	148	86	94	14
2....	22	25	....	....	....	....	....	89	232	64	79	14
3....	22	24	....	....	....	....	....	87	252	57	64	14
4....	24	16	....	....	....	....	....	79	250	54	48	14
5....	25	18	....	....	....	....	....	76	280	53	43	15
6....	24	25	....	....	....	....	....	76	292	44	43	15
7....	23	19	....	....	....	....	....	61	334	49	42	15
8....	24	18	....	....	....	....	....	64	256	53	50	15
9....	31	22	....	....	....	....	....	54	244	48	46	16
10....	38	18	....	....	....	....	....	52	392	42	42	16
11....	38	18	....	....	....	....	....	47	502	41	38	16
12....	24	19	....	....	....	....	....	43	490	43	35	16
13....	34	23	....	....	....	....	....	36	410	34	30	17
14....	30	22	....	....	....	....	....	53	400	34	25	17
15....	29	22	....	....	....	....	....	52	421	36	23	17
16....	29	22	....	....	....	....	....	52	402	30	24	17
17....	29	....	....	....	....	....	....	47	436	30	20	18
18....	32	....	....	....	....	....	....	40	438	34	19	18
19....	37	....	....	....	....	....	55	35	447	36	19	18
20....	31	....	....	....	....	....	82	34	412	35	25	18
21....	30	....	....	....	....	....	15	41	350	29	24	16
22....	35	....	....	....	....	....	16	55	310	41	20	17
23....	32	....	....	....	....	....	23	55	322	58	18	19
24....	28	....	....	....	....	....	48	53	260	47	18	17
25....	26	....	....	....	....	....	65	31	228	48	18	18
26....	34	....	....	....	....	....	67	35	201	42	20	48
27....	32	....	....	....	....	....	81	41	170	38	24	35
28....	26	....	....	....	....	....	98	55	157	40	20	30
29....	26	....	....	....	....	....	103	67	139	41	18	29
30....	23	....	....	....	....	....	98	76	108	42	16	30
31....	19	....	....	....	....	....	....	111	....	49	14	....
Total	879	....	....	....	....	....	....	1784	9283	1378	1019	579
Mean.	28.4	20.9	....	....	....	....	....	57.5	309	44.5	32.9	19.3
Max..	38	....	....	....	....	....	....	111	502	86	94	48
Min...	19	....	....	....	....	....	....	31	108	29	14	14
Acre-ft.	1750	1240	....	....	....	....	....	3540	18400	2740	2020	1150

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Roaring Fork Near Walden for Year Ending Sept. 30, 1934.
Drainage Area, 84 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	16	....	....	....	....	36	18	93	5.5	14	7.5
2....	24	15	....	....	....	....	34	20	67	5.0	14	6.5
3....	23	16	....	....	....	....	26	23	52	5.0	13	7.0
4....	23	19	....	....	....	....	27	36	44	5.5	13	6.0
5....	22	14	....	....	....	....	26	21	35	5.5	15	4.5
6....	20	15	....	....	....	....	29	21	24	5.5	14	4.8
7....	21	15	....	....	....	....	25	40	17	5.5	15	6.5
8....	25	18	....	....	....	....	36	78	11	5.5	18	8.0
9....	25	16	....	....	....	....	36	103	10	5.5	25	16
10....	26	14	....	....	....	....	36	109	9.5	5.5	22	11
11....	26	16	....	....	....	....	37	90	8.5	6.0	22	9.0
12....	25	16	....	....	....	....	38	118	8.5	5.5	18	8.0
13....	23	14	....	....	....	....	38	136	8.5	5.0	14	7.0
14....	24	15	....	....	....	....	40	78	8.5	5.5	16	6.0
15....	22	16	....	....	....	....	45	44	14	5.0	20	7.0
16....	21	16	....	....	....	....	41	41	12	4.2	17	6.0
17....	16	13	....	....	....	....	40	56	11	4.5	17	6.0
18....	16	14	....	....	....	....	38	73	9.5	4.8	18	6.5
19....	16	14	....	....	....	....	36	100	8.0	4.6	18	6.0
20....	15	12	....	....	....	....	34	116	8.0	5.0	21	6.0
21....	16	11	....	....	....	....	38	109	6.5	5.5	19	6.5
22....	15	15	....	....	....	....	42	107	6.0	6.5	18	7.0
23....	15	13	....	....	....	....	46	109	6.0	8.5	14	7.0
24....	15	9.5	....	....	....	....	50	95	6.5	10	14	5.5
25....	14	9.5	....	....	....	....	54	95	7.5	18	12	6.5
26....	14	10	....	....	....	38	52	91	7.0	14	12	11.0
27....	14	10	....	....	....	40	41	91	7.5	11	11	9.5
28....	11	10	....	....	....	45	27	91	6.5	11	10	9.5
29....	14	10	....	....	....	46	22	95	5.5	10	10	8.0
30....	14	10	....	....	....	54	19	230	6.0	9.5	9.5	6.5
31....	14	....	....	....	....	52	....	163	....	9.5	8.0	....
Total	594	412	....	....	....	....	1089	2597	524	217.8	481.5	216.3
Mean.	19.2	13.7	....	....	....	....	36.3	83.8	17.5	7.03	15.5	7.21
Max..	26	19	....	....	....	....	54	230	93	18	25	11
Min..	14	9.5	....	....	....	....	19	18	5.5	4.2	8	4.5
Acre-ft.	1180	817	....	....	....	....	2160	5150	1040	432	955	429

Discharge of Willow Creek Near Band for Year Ending Sept. 30, 1933.
Drainage Area, 62 Square Miles. Altitude, 8,530± Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	....	....	....	....	....	....	35	43	7	6	3
2....	4	....	....	....	....	....	....	45	68	6	6	3
3....	3	....	....	....	....	....	....	45	79	5	7	3
4....	4	....	....	....	....	....	....	42	80	6	4	3
5....	4	....	....	....	....	....	....	38	94	6	6	3
6....	4	....	....	....	....	....	....	35	112	4	5	3
7....	3	....	....	....	....	....	....	22	165	6	7	2
8....	3	....	....	....	....	....	....	21	125	11	8	3
9....	3	....	....	....	....	....	....	17	90	16	7	3
10....	4	....	....	....	....	....	....	17	86	6	4	4
11....	4	....	....	....	....	....	....	12	102	4	4	7
12....	4	....	....	....	....	....	....	12	112	3	3	12
13....	3	....	....	....	....	....	....	15	109	3	2	8
14....	3	....	....	....	....	....	....	21	117	3	2	5
15....	3	4	....	....	....	....	....	20	102	4	2	4
16....	2	....	....	....	....	....	....	12	85	3	2	4
17....	2	....	....	....	....	....	....	23	83	3	2	3
18....	3	....	....	....	....	....	46	34	92	4	2	2
19....	3	....	....	....	....	....	....	30	81	4	4	6
20....	2	....	....	....	....	....	....	28	75	4	4	3
21....	5	....	....	....	....	....	....	30	52	4	3	3
22....	6	....	....	....	....	....	....	32	43	3	5	2
23....	4	....	....	....	....	....	....	32	43	2	4	3
24....	3	....	....	....	....	....	....	22	35	2	3	3
25....	4	....	....	....	....	....	....	11	25	2	3	2
26....	4	....	....	....	....	....	....	8	17	2	3	11
27....	4	....	....	....	....	....	138	9	13	2	5	9
28....	4	....	....	....	....	....	100	9	12	2	7	9
29....	4	....	....	....	....	....	63	10	8	3	6	4
30....	4	....	....	....	....	....	40	14	7	3	5	3
31....	4	....	....	....	....	....	....	28	....	4	3	....
Total	112	....	....	....	....	....	....	729	2155	137	134	133
Mean.	3.61	....	....	....	....	....	....	23.5	71.8	4.42	4.32	4.43
Max..	6	....	....	....	....	....	....	45	165	16	8	12
Min..	2	....	....	....	....	....	....	9	7	2	2	2
Acre-ft.	222	....	....	....	....	....	....	1440	4270	272	266	264

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Willow Creek Near Rand for Year Ending Sept. 30, 1934.
Drainage Area, 62 Square Miles. Altitude, 8,530± Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	3.2	2.5	....	....	....	....	....	1.8	5.1	0	0.5	0
2.....	2.7	3.4	....	....	....	....	....	2.1	3.8	0	0.4	0
3.....	3.2	6.0	....	....	....	....	....	4.3	3.0	0	0.3	0
4.....	3.4	6.0	....	....	....	....	....	9.7	2.5	0	0.4	0
5.....	3.0	5.0	....	....	....	....	....	6.2	2.1	0	0.5	0
6.....	3.2	5.0	....	....	....	....	....	4.0	2.0	0	0.5	0
7.....	3.6	5.0	....	....	....	....	....	3.0	2.3	0	0.5	0.3
8.....	3.4	5.0	....	....	....	....	....	3.6	2.0	0	0.5	0.5
9.....	2.9	5.0	....	....	....	....	....	3.4	1.6	0	0.5	1.4
10.....	3.0	5.0	....	....	....	....	....	3.4	1.2	0	0.6	1.8
11.....	3.2	5.0	....	....	....	....	5.1	3.8	0.8	0.6	0.8	1.4
12.....	3.2	5.0	....	....	....	....	5.4	4.0	0.6	0.4	0.4	1.2
13.....	3.0	5.0	....	....	....	....	6.0	5.4	0.4	0.2	0.1	0.8
14.....	3.4	5.0	....	....	....	....	7.6	4.3	0.4	0.2	0.1	0.6
15.....	3.0	5.0	....	....	....	....	5.7	3.8	0.8	0.2	0.4	0.6
16.....	2.3	4.6	....	....	....	....	4.0	3.8	1.4	0	0.3	0.6
17.....	2.5	4.6	....	....	....	....	2.9	3.6	1.5	0	0.2	0.6
18.....	2.9	4.6	....	....	....	....	2.7	3.2	0.6	0	0.1	0.6
19.....	2.9	4.6	....	....	....	....	2.1	2.7	0.5	0	0	0.5
20.....	2.9	4.6	....	....	....	....	2.0	2.5	0.4	0	0.1	0.8
21.....	3.0	4.4	....	....	....	....	2.1	2.7	0.3	0	0.4	1.0
22.....	2.7	4.0	....	....	....	....	2.0	1.8	0.1	0	0.5	1.6
23.....	2.7	4.0	....	....	....	....	1.8	2.0	0.1	0	0.4	1.2
24.....	2.7	4.0	....	....	....	....	2.3	3.2	0.1	0	0	0.9
25.....	2.9	4.0	....	....	....	....	2.1	3.8	0.3	0	0	1.5
26.....	2.9	4.0	....	....	....	....	2.3	3.8	0.2	0.1	0	2.0
27.....	2.9	4.0	....	....	....	....	2.9	3.4	0.1	0.1	0	2.0
28.....	2.7	4.0	....	....	....	....	2.5	3.4	0	0.2	0	2.1
29.....	2.7	4.0	....	....	....	....	2.1	3.2	0	0.1	0	2.5
30.....	2.7	4.0	....	....	....	....	1.6	4.3	0	0.2	0	2.1
31.....	2.5	....	....	....	....	....	....	7.6	....	0.4	0	....
Total	91.3	136.3	....	....	....	....	....	117.8	34.2	2.7	8.5	28.6
Mean..	2.95	4.54	....	....	....	....	....	3.80	1.14	0.09	0.27	0.95
Max..	3.6	6.0	....	....	....	....	....	9.7	5.1	0.6	0.8	2.5
Min..	2.3	2.5	....	....	....	....	....	1.8	0	0	0	0
Acre-ft.	181	270	....	....	....	....	....	234	68	5.4	17	57

Discharge of Laramie River Near Glendevy for Year Ending Sept. 30, 1933.
Drainage Area, 101 Square Miles. Altitude, 8,231 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	17	....	....	....	....	....	18	43	735	128	31	12
2.....	17	....	....	....	....	....	18	49	807	128	32	12
3.....	17	....	....	....	....	....	18	48	684	128	30	13
4.....	19	....	....	....	....	....	20	42	780	125	26	13
5.....	19	25	....	....	....	....	20	45	865	125	25	14
6.....	17	27	....	....	....	....	21	49	845	125	24	14
7.....	17	25	....	....	....	....	19	36	735	125	25	14
8.....	16	26	....	....	....	....	24	27	537	125	26	14
9.....	20	28	....	....	....	....	20	31	608	88	28	26
10.....	22	26	....	....	....	....	17	31	624	61	30	26
11.....	26	28	....	....	....	....	17	30	726	52	30	35
12.....	30	29	....	....	....	....	19	28	825	45	27	55
13.....	37	28	....	....	....	....	19	29	710	38	21	37
14.....	34	....	....	....	....	....	20	30	735	35	19	30
15.....	30	....	....	....	....	....	17	30	599	35	17	27
16.....	30	....	....	....	....	....	19	40	544	34	19	25
17.....	28	....	....	....	....	....	24	61	544	34	19	22
18.....	30	....	....	....	....	....	36	88	590	35	18	22
19.....	25	....	....	....	....	....	35	100	516	37	19	24
20.....	22	....	....	....	....	....	17	125	599	35	15	23
21.....	27	....	....	....	....	....	15	152	495	31	14	20
22.....	29	....	....	....	....	....	21	164	376	32	16	21
23.....	27	....	....	....	....	....	29	161	298	34	15	21
24.....	27	....	....	....	....	....	30	164	268	30	14	20
25.....	29	....	....	....	....	....	32	146	251	30	14	20
26.....	28	....	....	....	....	....	30	161	229	30	14	58
27.....	29	....	....	....	....	....	31	213	217	23	18	55
28.....	27	....	....	....	....	....	42	273	205	27	19	43
29.....	27	....	....	....	....	....	55	303	179	28	15	34
30.....	27	....	....	....	....	....	45	418	143	29	14	31
31.....	27	....	....	....	....	....	....	544	....	29	13	....
Total	777	....	....	....	....	....	748	3661	16269	1866	647	781
Mean..	25.1	27.0	....	....	....	....	24.9	118	542	60.2	20.9	26.0
Max..	37	....	....	....	....	....	55	544	865	128	31	58
Min..	16	....	....	....	....	....	15	27	143	27	13	12
Acre-ft.	1540	1610	....	....	....	....	1480	7260	32300	3700	1290	1550

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Laramie River Near Glendevay for Year Ending Sept. 30, 1934.
Drainage Area, 101 Square Miles. Altitude, 8,231 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	31	25	18	....	....	....	33	110	46	12	13	11
2....	33	21	21	....	....	....	34	108	34	12	10	11
3....	42	23	21	....	....	....	32	96	32	14	8.2	11
4....	43	24	20	....	....	....	32	115	31	17	8.4	11
5....	40	17	20	....	....	....	28	147	27	17	14	11
6....	39	17	21	....	....	....	30	160	25	14	14	14
7....	38	21	20	....	....	....	32	160	25	12	14	13
8....	36	21	....	....	....	....	27	160	19	11	13	19
9....	34	20	....	....	....	....	26	174	18	12	13	17
10....	34	19	....	....	....	....	25	147	17	12	12	14
11....	32	21	....	....	....	....	55	132	16	11	13	15
12....	33	21	....	....	....	....	60	144	15	9.8	11	12
13....	32	20	....	....	....	....	60	141	15	9.0	9.8	11
14....	33	19	....	....	....	....	62	105	14	9.0	9.8	11
15....	32	18	....	....	....	....	63	95	14	9.0	11	12
16....	28	18	....	....	....	....	54	93	16	9.0	11	11
17....	26	20	....	....	....	....	46	100	15	9.0	17	10
18....	29	21	....	....	....	....	46	93	14	9.0	17	11
19....	25	20	....	....	....	....	48	100	14	8.8	17	11
20....	25	19	....	....	....	....	60	98	14	8.6	19	13
21....	25	21	....	....	....	....	73	102	14	9.0	20	17
22....	25	21	....	....	....	....	91	84	13	12	24	14
23....	25	21	....	....	....	....	98	74	14	14	25	11
24....	25	21	....	....	....	....	108	66	16	12	23	12
25....	25	21	....	....	....	....	126	57	21	14	18	17
26....	24	21	....	....	....	....	132	51	18	15	13	20
27....	24	21	....	....	....	....	91	46	15	14	11	18
28....	26	20	....	....	....	....	91	47	13	12	10	22
29....	26	19	....	....	....	....	102	60	12	11	11	22
30....	26	18	....	....	....	....	102	98	12	13	11	20
31....	25	....	....	....	....	....	....	115	....	14	10	....
Total	941	609	....	....	....	....	1867	3280	569	365.2	434.2	422
Mean.	30.4	20.3	20.1	....	....	....	62.2	106	19.0	11.8	14.0	14.1
Max..	43	25	....	....	....	....	132	174	46	17	25	22
Min..	24	17	....	....	....	....	25	46	12	8.6	8.2	10
Acre-ft.	1870	1210	280	....	....	....	3700	6510	1130	724	861	837

Discharge of Laramie River Near Jelm, Wyoming, for Year Ending Sept. 30, 1933.
Drainage Area, 297 Square Miles. Altitude, 7,730 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	34	52	44	20	28	26	60	125	1280	292	87	34
2....	32	50	42	20	28	26	60	120	1470	252	81	30
3....	32	50	42	20	28	26	60	115	1440	245	78	30
4....	32	46	40	20	28	26	60	110	1400	322	72	29
5....	32	47	39	20	28	26	60	117	1490	237	64	29
6....	30	52	36	22	17	28	74	120	1470	194	60	28
7....	28	46	30	24	17	28	74	99	1460	264	62	26
8....	28	46	28	24	17	28	74	93	1220	326	62	29
9....	35	46	28	24	17	28	74	79	1220	256	60	40
10....	40	44	28	24	17	28	74	78	1400	184	54	47
11....	43	46	16	21	18	32	79	79	1430	158	53	58
12....	46	46	16	21	18	32	101	67	1490	147	49	101
13....	54	46	16	21	18	32	83	69	1400	127	46	72
14....	60	46	16	21	18	32	87	72	1380	115	44	58
15....	56	52	16	21	18	32	99	76	1280	113	43	52
16....	52	53	18	22	22	34	117	83	1220	105	42	47
17....	50	56	18	22	22	34	149	99	1180	99	43	44
18....	52	56	18	22	21	34	204	141	1240	101	44	44
19....	50	58	18	22	22	34	130	187	1070	97	47	47
20....	43	52	18	22	22	34	62	222	1120	93	53	49
21....	54	46	21	24	28	36	171	288	998	87	47	46
22....	56	46	21	24	28	36	264	343	862	83	43	46
23....	54	46	21	24	28	36	352	339	745	87	42	47
24....	50	49	21	24	28	36	252	330	639	83	37	43
25....	43	50	21	24	28	36	174	322	598	70	36	40
26....	54	52	24	28	24	53	135	375	529	69	36	67
27....	49	46	24	28	24	53	113	448	480	69	47	89
28....	52	49	24	28	24	53	127	618	433	65	54	85
29....	47	42	24	28	....	53	133	731	399	65	49	72
30....	50	43	24	28	....	53	130	900	343	65	43	62
31....	46	....	24	28	....	53	....	1110	....	70	36	....
Total	1384	1459	776	721	636	1098	3632	7955	32686	4540	1614	1491
Mean.	44.6	48.6	25	23.3	22.7	35.4	121	257	1090	146	52.1	49.7
Max..	60	58	44	....	....	....	352	1110	1490	326	87	101
Min..	28	42	....	....	....	....	....	67	343	65	36	26
Acre-ft.	2740	2890	1540	1430	1260	2180	7200	15800	64900	8980	3200	2960

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Laramie River Near Jelm, Wyoming, for Year Ending Sept. 30, 1934.
Drainage Area, 297 Square Miles. Altitude, 7,730 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	52	32	28	32	37	37	52	177	161	12	29	19
2....	47	32	23	32	37	37	53	152	122	12	28	18
3....	54	32	24	32	37	37	50	165	112	13	28	19
4....	56	35	24	32	37	37	50	174	107	13	28	18
5....	54	28	24	32	37	37	44	230	89	15	35	18
6....	54	28	25	25	42	36	39	303	77	12	49	17
7....	54	37	25	25	42	36	50	340	81	10	43	16
8....	53	34	25	25	42	36	58	332	69	10	35	18
9....	52	39	25	25	42	36	70	344	59	11	35	30
10....	52	37	25	25	42	36	74	315	56	13	36	28
11....	50	37	26	28	37	43	74	291	52	15	36	24
12....	49	35	26	28	37	43	83	311	46	12	31	21
13....	50	31	26	28	36	43	93	332	42	11	28	21
14....	50	32	26	28	37	43	93	267	38	10	27	20
15....	50	30	26	28	37	43	97	252	38	10	28	19
16....	46	32	25	32	36	37	83	233	37	10	29	18
17....	43	36	25	32	36	37	76	252	34	10	29	18
18....	43	34	25	32	36	37	74	205	34	10	28	17
19....	43	31	25	32	36	37	81	245	29	10	27	18
20....	42	37	25	32	36	37	93	248	26	12	29	20
21....	39	30	31	35	36	42	105	233	22	27	34	24
22....	37	34	31	35	36	42	147	219	21	25	29	24
23....	36	34	31	35	36	42	208	184	21	27	26	21
24....	37	32	31	35	36	42	218	177	23	21	25	18
25....	37	29	31	35	36	42	241	181	46	21	24	24
26....	34	26	32	34	35	44	241	155	31	24	24	28
27....	31	31	32	34	35	42	149	150	21	53	24	28
28....	31	26	32	34	35	53	161	144	17	35	24	29
29....	31	24	32	34	....	54	187	155	14	31	23	31
30....	32	26	32	34	....	59	184	201	13	29	22	34
31....	32	....	32	34	....	60	....	215	....	31	22	....
Total	1371	961	850	964	1044	1287	3228	7182	1540	555	915	658
Mean.	44.2	32.0	27.4	31.1	37.3	41.5	108	232	51.3	17.9	29.5	21.9
Max..	56	39	....	....	....	60	241	344	161	53	49	34
Min..	31	24	23	....	....	....	39	144	13	10	22	16
Acre-ft.	2720	1910	1690	1910	2070	2550	6400	14250	3050	1100	1810	1310

Unless otherwise noted, all discharges are in cubic feet per second.

ARKANSAS RIVER DRAINAGE

Cooperation—All stations maintained in cooperation with the United States Geological Survey.

†In cooperation with Arkansas Valley Ditch Association.

†ARKANSAS RIVER AT GRANITE

Location—At Granite in Sec. 31, T. 11 S., R. 79 W. above mouth of Cache Creek.

Records Available—May 1, 1897, to September 10, 1899; April 6, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1897-99, 1910-34): 2,900 second-feet June 16, 1924 (gage height, 4.57 feet).

ARKANSAS RIVER AT SALIDA

Location—In Sec. 32, T. 50 N., R. 9 E., at City Park at Salida. South Fork enters $1\frac{1}{2}$ miles below.

Records Available—April 11, 1895, to October 31, 1903; November 3, 1909, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1895-1903, 1909-34): 5,100 second-feet June 16, 1924 (gage height, 7.2 feet).

ARKANSAS RIVER AT CANON CITY

Location—In Sec. 32 T. 18 S., R. 70 W., above mouth of Sand Creek, $\frac{1}{4}$ mile above the Southern Colorado Power Plant at Canon City.

Records Available—May 1, 1888, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1888-1934): 19,000 second-feet August 2, 1921 (gage height, 10.7 feet).

†ARKANSAS RIVER AT PUEBLO

Location—In Sec. 34, T. 20 S., R. 65 W., at South Side water-works intake. Both South Side and North Side water-works divert above station.

Records Available—May 1, 1885, to September 30, 1886; September 19, 1894, to September 30, 1934. A station was maintained 9 miles above Pueblo from June 1 to September 30, 1887, and May 1 to August 31, 1889.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1885-86, 1894-1934): 103,000 second-feet (slope measurements including estimated discharge of Dry Creek, 19,500 second-feet) June 3, 1921 (gage height, 24.66 feet, gage at Pueblo).

†ARKANSAS RIVER NEAR NEPESTA

Location—At Oxford Farmers Canal Company's dam in Sec. 31, T. 21 S., R. 60 W., $1\frac{1}{2}$ miles west of Nepesta. Records corrected for Oxford Farmers Canal waste water from 1918 to 1926. Records not corrected for waste water from 1927 to date.

Records Available—September 8, 1897, to October 31, 1903; July 14, 1909, to November 30, 1912; January 1, 1914, to September 30, 1934. From 1918 to June 4, 1921, station maintained at Nepesta.

Gage—Automatic recording gage.

Accuracy—Results poor.

Maximum Discharge (1897-1903, 1909-12, 1914-34): 180,000 second-feet (slope measurement) at point 9 miles upstream June 4, 1921.

†ARKANSAS RIVER AT LA JUNTA

Location—At East Bridge in La Junta in Sec. 2, T. 24 S., R. 55 W.

Records Available—May 20 to August 31, 1889; December 5, 1893, to December 31, 1895; 1899 to 1901; April 7 to October 31, 1903; August 27 to November 30, 1908; April 11, 1912, to September 30, 1934. This station has been maintained at different places during this time, but the records are comparable.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1893-5, 1901, 1903, 1908, 1912-34): 200,000 second-feet (slope measurement) June 4, 1921 (gage height, 18.4 feet).

†ARKANSAS RIVER AT LAMAR

Location—At highway bridge one mile north of Lamar in Sec. 30, T. 21 S., R. 46 W. Lamar Canal wastes $\frac{1}{4}$ mile below station.

Record Available—May 11, 1913, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1913-34): 165,000 second-feet (slope measurement) June 5, 1921.

†ARKANSAS RIVER AT HOLLY

Location—At highway bridge half mile southeast of Holly in Sec. 14, T. 23 S., R. 42 W. Two Buttes Creek enters $1\frac{1}{4}$ miles upstream.

Records Available—October 15, 1907, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1907-34): 136,000 second-feet (slope measurement) October 20, 1908 (gage height, 11.0 feet, former datum).

SOUTH FORK ARKANSAS RIVER NEAR SALIDA

Location—In Sec. 5, T. 49 N., R. 9 E., 1 mile above mouth and $1\frac{1}{2}$ miles below Salida station.

Records Available—April 1, 1922, to December 31, 1924; June 9, 1929, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1922-24, 1929-34): 1,220 second-feet June 17, 1923.

GRAPE CREEK NEAR WESTCLIFFE

Location—In Sec. 36, T. 21 S., R. 73 W., at weir one mile above head of De Weese Dye Reservoir and 3 miles northwest of Westcliffe.

Records Available—December 1, 1924, to June 30, 1928; March 25, 1930, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1924-28, 1930-34): 732 second-feet July 22, 1930 (gage height, 4.60 feet).

ST. CHARLES RIVER AT BURNT MILL

Location—In Sec. 8, T. 23 S., R. 66 W., at highway bridge at Burnt Mill.

Records Available—March, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1923-34): 21,800 second-feet August 22, 1925 (gage height, 22.13 feet).

HUERFANO RIVER AT MANZANARES CROSSING
NEAR REDWING

Location—In Sec. 5, T. 27 S., R. 71 W., 4 miles above Redwing.

Records Available—July 14, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Stage (1923-34): 4.30 feet (discharge not determined).

CUCHARAS RIVER NEAR LA VETA

Location—In Sec. 24, T. 30 S., R. 69 W., six miles above La Veta.

Record Available—January 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1923-34): 624 second-feet May 23, 1926.

PURGATOIRE RIVER AT TRINIDAD

Location—In Sec. 18, T. 33 S., R. 64 W., at foot of State Street in Trinidad.

Records Available—1897 to 1899, 1905 to 1912, April 1, 1916, to September 30, 1934. Stations maintained at various locations but records are comparable.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1896-99, 1905, 1906-12, 1916-34): 45,000 second-feet September 30, 1904 (gage height, 16.6 feet, commercial street gage).

PURGATOIRE RIVER AT NINE MILE DAM NEAR HIGBEE

Location—In Sec. 32, T. 26 S., R. 54 W., 700 feet above Nine Mile Dam, four miles southwest of Higbee and fifteen miles south of La Junta. Smith Canon enters four miles below station.

Records Available—October 1, 1924, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge: 64,500 second-feet September 19, 1934 (gage height, 12.00 feet).

PURGATOIRE RIVER AT HIGHLAND (CARMEN) DAM, NEAR LAS ANIMAS

Location—In Sec. 1, T. 25 S., R. 53 W., at west end Highland Dam situated eleven miles southwest of Las Animas. Tarbox Arroya enters one-fourth mile below.

Records Available—October 1, 1931, to September 30, 1934. This station established at this point instead of at the mouth on account of greater accuracy of records.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1931-34): 33,000 second-feet September 15, 1934 (gage height, 14.00 feet).

WILD HORSE CREEK AT MOUTH NEAR HOLLY

Location—In Sec. 15, T. 23 S., R. 42 W., one-fourth mile southeast of Holly. This is not included in Arkansas River record at Holly as it enters river below station.

Records Available—October 1, 1922, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

HOLLY DRAIN NEAR HOLLY, COLORADO

Location—In Sec. 16, T. 23 S., R. 41 W., where Santa Fe R. crosses Cheyenne Creek 100 yards west of state line. Cheyenne Creek enters just above station.

Records Available—January 1, 1924, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Note: Some waste water and water from Cheyenne Creek included in this table.

Maximum Discharge (1924-34): 390 second-feet July 29, 1927 (gage height, 6.5 feet).

Discharge of Arkansas River at Granite for Year Ending Sept. 30, 1933.
Drainage Area, 431 Square Miles. Altitude, 8,930 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	96	94	82	....	....	....	92	118	1540	631	579	131
2....	94	88	82	....	....	....	94	118	1860	810	492	122
3....	86	92	78	....	....	....	109	109	1670	1160	300	116
4....	86	88	78	....	....	....	109	89	1770	1320	205	111
5....	86	80	76	....	....	....	82	87	2000	1280	268	111
6....	86	90	78	....	....	....	78	92	2000	1190	251	111
7....	86	94	82	....	....	....	78	78	1840	1330	255	114
8....	88	76	80	....	....	....	78	87	1360	1260	300	111
9....	90	94	80	....	....	....	75	87	1190	1060	248	114
10....	98	82	80	....	....	....	75	87	1480	742	205	136
11....	118	80	80	....	....	....	71	103	1800	757	214	167
12....	121	94	80	....	....	....	71	91	1290	787	192	178
13....	116	94	....	....	....	....	71	89	848	810	198	162
14....	113	94	....	....	....	....	71	92	817	742	205	192
15....	110	86	....	....	....	....	71	92	1190	658	266	145
16....	108	84	....	....	....	....	85	109	1620	498	277	140
17....	103	90	....	....	....	....	94	152	1670	419	424	129
18....	94	88	....	....	....	....	100	178	1520	300	481	136
19....	86	88	....	....	....	....	103	214	1380	331	554	133
20....	80	90	....	....	....	....	100	364	1540	322	529	129
21....	82	92	....	....	....	....	105	498	1420	318	359	131
22....	94	96	....	....	....	....	109	611	1280	309	510	136
23....	86	80	....	....	76	....	118	492	1160	336	269	136
24....	96	86	....	....	....	....	127	475	965	318	258	127
25....	90	80	....	....	....	....	125	446	832	305	205	120
26....	96	80	....	....	....	....	114	492	794	305	186	118
27....	98	80	....	....	....	....	105	658	742	435	178	111
28....	96	84	....	....	....	64	136	764	742	605	157	103
29....	98	76	....	....	....	75	136	872	699	548	147	100
30....	98	72	....	....	....	85	131	1020	658	598	145	96
31....	90	....	....	....	....	96	....	1310	....	554	138	....
Total	2969	2592	....	....	....	....	2913	10074	39677	21038	8993	3866
Mean.	95.8	86.4	78	75	70	74	97.1	325	1320	679	290	129
Max..	121	96	....	....	....	....	136	1310	2000	1330	579	192
Min..	80	72	....	....	....	....	71	87	658	300	138	96
Acre-ft.	5890	5140	4800	4610	3890	4550	5780	20000	78600	41800	17800	7680

Discharge of Arkansas River at Granite for Year Ending Sept. 30, 1934.
Drainage Area, 431 Square Miles. Altitude, 8,930 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	96	75	77	....	....	60	104	358	826	301	168	125
2....	98	70	74	....	....	60	104	340	731	280	153	120
3....	111	68	70	....	....	60	98	331	670	230	148	120
4....	114	75	75	....	....	60	102	367	658	203	138	114
5....	111	75	68	....	....	61	109	391	605	240	138	107
6....	109	74	65	....	....	55	104	405	553	269	142	111
7....	100	75	74	....	....	52	116	455	476	233	140	116
8....	98	75	74	....	....	61	135	525	455	197	148	140
9....	120	79	72	....	56	50	153	616	482	200	173	206
10....	158	74	75	....	....	52	142	725	455	209	163	185
11....	160	74	72	....	....	55	145	744	460	216	158	160
12....	163	77	70	....	....	62	182	812	476	213	148	155
13....	125	75	72	....	....	62	173	860	476	188	150	155
14....	94	102	70	....	....	67	173	806	445	176	158	153
15....	94	132	54	....	....	72	171	787	435	163	163	148
16....	94	155	44	....	....	80	166	781	405	163	163	142
17....	94	145	42	....	....	72	158	853	381	153	148	135
18....	86	116	42	....	....	68	158	853	344	153	160	130
19....	79	75	48	....	....	65	166	873	318	153	160	125
20....	75	77	48	....	....	74	163	873	276	148	203	150
21....	75	72	50	....	....	77	185	873	293	158	176	163
22....	74	75	50	....	....	80	191	806	272	200	158	158
23....	75	67	50	....	....	82	188	769	251	209	148	153
24....	82	62	50	....	....	98	269	694	262	331	148	150
25....	82	65	50	....	....	125	276	738	284	276	135	148
26....	80	62	75	....	....	138	284	731	265	269	130	148
27....	82	65	130	....	....	130	284	738	265	269	135	142
28....	79	70	130	....	....	114	293	688	381	254	138	152
29....	75	72	130	....	....	125	314	793	381	244	135	130
30....	75	75	100	....	....	109	327	853	372	230	128	128
31....	74	....	50	....	....	120	....	922	....	191	125	....
Total	3032	2453	2151	....	....	2446	5433	21360	12953	6719	4678	4249
Mean.	97.8	81.8	69.4	50	55	78.9	181	689	432	217	151	142
Max..	163	155	....	....	....	138	327	922	826	331	203	206
Min..	74	62	....	....	....	50	98	331	251	148	125	107
Acre-ft.	6010	4870	4270	3070	3050	4850	10800	42400	25700	13300	9280	8450

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Salida for Year Ending Sept. 30, 1933.
Drainage Area, 1,210 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	282	260	260	189	176	194	186	196	2340	1020	846	267
2....	288	265	263	189	178	194	199	189	2640	980	912	252
3....	285	265	255	186	178	194	202	199	2340	1360	757	243
4....	285	274	250	186	178	191	207	202	2380	1670	311	237
5....	282	279	255	189	186	182	199	182	2670	1670	348	237
6....	274	282	247	189	186	180	186	178	2500	1620	363	234
7....	274	285	235	182	176	186	180	178	2490	1840	382	232
8....	271	268	233	184	176	186	178	178	2060	1870	453	226
9....	265	268	231	182	180	189	178	178	1820	1640	436	234
10....	268	282	242	180	178	186	178	180	2160	1200	418	249
11....	271	258	238	179	180	182	178	182	2640	1040	374	311
12....	282	258	235	172	184	182	178	184	2610	1150	370	427
13....	282	263	227	176	189	186	180	180	1620	1210	355	414
14....	282	271	220	174	184	180	180	180	1430	1070	340	374
15....	279	271	218	176	184	178	178	180	1560	1010	367	390
16....	274	260	213	180	184	184	178	178	2280	882	359	332
17....	271	265	211	178	182	202	178	191	2470	804	520	322
18....	265	265	216	176	182	220	176	237	2460	510	648	304
19....	258	265	209	174	184	220	174	326	2140	520	757	304
20....	255	265	211	174	178	218	178	525	2360	462	780	287
21....	260	268	207	174	184	182	182	740	2270	462	614	287
22....	276	268	207	172	182	182	184	956	2290	486	467	304
23....	271	260	207	174	186	176	186	906	1940	481	436	294
24....	276	252	207	180	178	176	184	774	1740	472	378	297
25....	282	255	198	178	186	176	189	664	1590	571	351	277
26....	282	255	198	184	189	176	186	670	1500	440	351	277
27....	296	255	196	178	191	176	184	912	1390	453	351	267
28....	296	258	196	176	196	176	184	1090	1360	840	344	258
29....	288	263	196	170	....	178	196	1240	1320	792	301	252
30....	276	258	193	172	....	180	199	1740	1150	822	270	249
31....	268	....	193	178	....	178	....	2160	....	780	273	....
Total	8564	7961	6867	5542	5115	5790	5545	16075	61520	30127	14232	8638
Mean.	276	265	222	179	183	187	185	518	2050	972	459	288
Max.	296	285	263	189	196	220	207	2160	2670	1870	912	427
Min.	255	252	193	170	176	176	174	178	1150	440	270	226
Acre-ft.	17000	15800	13600	11000	10200	11500	11000	31800	122000	59800	28200	17100

Discharge of Arkansas River at Salida for Year Ending Sept. 30, 1934.
Drainage Area, 1,210 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	243	216	226	204	268	189	183	537	1160	468	322	254
2....	243	226	226	213	261	192	178	542	1010	413	349	250
3....	243	223	226	207	257	192	210	537	906	392	308	250
4....	254	226	223	210	223	189	201	532	858	349	308	254
5....	247	243	226	192	198	183	216	566	786	364	419	247
6....	243	254	216	189	198	183	216	786	716	388	363	247
7....	243	268	226	170	201	189	230	996	660	392	326	257
8....	243	268	226	170	201	178	250	1120	585	333	308	264
9....	243	261	219	176	201	178	275	1180	590	311	333	322
10....	264	261	226	192	207	173	261	1460	546	297	372	341
11....	279	247	223	186	201	168	243	1560	570	315	364	304
12....	282	247	219	178	189	170	247	1400	575	326	337	286
13....	279	254	223	173	195	170	264	1440	610	297	322	286
14....	247	254	236	195	195	170	264	1250	585	290	333	279
15....	233	286	230	213	186	170	250	1210	546	282	356	275
16....	226	300	230	213	183	173	261	1260	509	272	360	282
17....	230	315	210	198	192	178	261	1340	482	261	345	261
18....	230	297	223	201	195	170	240	1320	442	254	330	243
19....	230	236	223	204	189	165	243	1300	434	243	356	230
20....	230	223	226	195	195	165	254	1290	404	247	396	233
21....	230	216	226	201	195	165	275	1280	468	254	429	261
22....	233	210	230	204	192	165	304	1160	421	275	384	254
23....	230	216	223	216	189	163	326	1070	404	322	349	254
24....	226	213	213	213	195	176	364	972	421	421	330	290
25....	223	207	216	216	195	204	460	996	468	451	318	272
26....	223	207	216	207	192	216	482	1010	455	495	304	264
27....	219	210	226	204	195	223	486	996	446	468	297	261
28....	219	216	300	213	192	216	455	960	482	425	290	247
29....	219	213	300	216	....	216	455	1100	504	368	290	286
30....	213	216	293	233	....	195	491	1200	504	360	279	330
31....	210	....	272	279	....	181	....	1280	....	330	268	....
Total	7377	7229	7198	6281	5680	5665	8845	33650	17547	10663	10445	8084
Mean.	238	241	232	203	203	183	295	1090	585	344	337	269
Max.	282	315	300	279	268	223	491	1560	1160	495	429	341
Min.	210	207	210	170	183	163	178	532	404	243	268	230
Acre-ft.	14600	14300	14300	12500	11300	11300	17600	67000	34800	21200	20700	16000

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Canon City for Year Ending Sept. 30, 1933.
Drainage Area, 3,090 Square Miles. Altitude, 5,363 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	234	310	320	270	385	306	161	320	2290	1020	735	190
2....	226	301	310	270	395	284	168	301	2800	973	684	197
3....	226	297	297	270	400	292	158	334	2660	1140	2290	215
4....	226	288	284	270	410	288	155	421	2560	1500	726	212
5....	226	279	275	270	400	262	204	334	2820	1660	444	204
6....	226	288	275	270	466	258	204	344	2850	1540	449	204
7....	219	288	275	270	455	266	180	279	2860	1620	427	197
8....	222	284	260	270	444	226	150	234	2420	1810	438	201
9....	226	262	250	270	400	215	147	215	2120	1670	460	219
10....	226	284	240	270	389	208	144	212	2120	7360	449	363
11....	234	262	230	270	379	204	141	254	2780	973	410	315
12....	226	254	220	271	421	190	141	270	3110	1070	358	384
13....	230	254	210	275	324	184	138	275	2680	1110	320	438
14....	230	270	210	275	339	174	136	254	1850	1060	306	498
15....	230	320	200	275	358	168	136	238	1760	916	288	492
16....	234	310	210	280	379	164	141	226	2410	1020	329	449
17....	234	284	220	285	379	168	144	208	2660	859	315	416
18....	234	279	220	290	344	168	150	215	2880	726	504	368
19....	230	279	220	295	320	212	152	297	2610	511	565	363
20....	246	288	220	300	284	238	158	537	2560	498	615	358
21....	270	279	230	310	288	238	177	916	2530	479	551	348
22....	270	292	230	315	339	219	212	1170	2560	466	394	374
23....	275	292	240	320	310	208	222	1100	2230	485	320	389
24....	288	262	240	325	306	194	238	916	1980	455	288	374
25....	334	270	250	335	315	201	242	814	1750	579	258	358
26....	315	275	250	340	288	230	266	752	1600	421	250	334
27....	344	288	260	345	297	212	266	916	1460	384	238	329
28....	368	292	260	350	310	190	358	1150	1300	498	238	310
29....	358	297	270	360	....	187	339	1320	1240	701	238	292
30....	358	320	270	370	....	184	320	1620	1170	638	208	266
31....	339	....	270	380	....	177	....	2120	....	693	194	....
Total	8104	8548	7716	9266	10124	6715	5748	18562	68620	28835	14289	9657
Mean..	261	285	249	299	362	217	192	599	2290	930	461	322
Max...	368	320	....	....	....	306	358	2120	3110	1810	2290	498
Min...	219	254	....	....	....	164	136	278	1170	384	194	190
Acre-ft.	16000	17000	15300	18400	20100	13300	11400	36800	136000	57200	28300	19200

Discharge of Arkansas River at Canon City for Year Ending Sept. 30, 1934.
Drainage Area, 3,090 Square Miles. Altitude, 5,363 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	243	196	271	312	294	236	153	512	1140	455	215	198
2....	233	206	298	279	294	220	151	529	1020	541	500	193
3....	233	193	290	275	283	218	161	512	986	455	575	186
4....	236	206	287	275	287	212	201	529	1030	294	368	191
5....	246	240	298	268	257	201	196	512	1010	268	321	191
6....	250	240	290	268	233	193	229	512	970	287	620	191
7....	246	271	294	268	233	193	223	570	883	326	382	184
8....	246	279	312	268	223	188	257	747	784	312	298	196
9....	246	264	303	260	220	181	253	986	679	298	298	218
10....	246	275	316	260	257	181	240	1220	541	243	298	257
11....	279	279	312	268	268	181	220	1390	483	233	303	257
12....	294	268	298	268	260	181	215	1460	494	260	344	229
13....	307	257	290	246	271	172	223	1460	506	253	250	218
14....	321	260	307	236	275	165	246	1360	517	226	268	218
15....	287	233	287	268	271	155	253	1220	500	229	303	212
16....	268	264	279	307	250	156	215	1230	494	283	290	209
17....	246	271	283	275	250	174	209	1240	423	442	287	206
18....	243	279	264	290	240	176	201	1290	387	188	268	184
19....	236	275	312	283	236	176	188	1260	349	176	294	170
20....	236	236	321	354	236	172	191	1250	339	169	312	167
21....	233	233	316	354	236	172	201	1260	330	170	339	170
22....	223	233	321	321	236	169	236	1190	354	176	344	186
23....	233	240	321	303	229	170	279	1090	316	209	312	181
24....	223	250	298	307	236	218	316	1010	316	260	268	196
25....	215	243	303	294	243	260	392	938	354	455	312	212
26....	212	243	303	246	226	298	489	978	382	529	298	196
27....	212	240	303	226	236	283	535	954	354	478	223	191
28....	226	240	330	226	233	240	506	906	344	378	212	191
29....	229	240	378	223	....	198	494	962	527	307	204	184
30....	215	240	363	229	....	174	500	1100	428	268	198	229
31....	193	....	363	271	....	165	....	1160	....	243	191	....
Total	7556	7394	9511	8528	7013	6078	8173	31337	17240	9411	9695	6011
Mean..	244	246	307	275	250	196	272	1010	575	304	313	200
Max...	321	279	378	354	294	298	535	1460	1140	541	620	257
Min...	193	193	264	223	220	155	151	512	316	169	191	167
Acre-ft.	15000	14600	18900	16900	13900	12100	16200	62100	34200	18700	19200	11900

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Pueblo for Year Ending Sept. 30, 1933.
Drainage Area, 4,820 Square Miles. Altitude, 4,675 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	173	307	249	154	124	161	55	242	2420	823	1870	60
2....	136	332	232	154	119	144	36	257	2720	729	1840	64
3....	194	367	216	226	98	149	55	371	2960	750	2180	60
4....	232	358	232	242	89	161	74	1740	2550	1190	834	62
5....	224	324	232	242	124	144	124	709	2660	1460	595	69
6....	166	298	249	257	100	114	154	532	2800	1550	752	72
7....	144	307	290	273	75	101	77	380	2640	1370	732	62
8....	106	332	275	288	80	109	39	288	2350	1880	495	55
9....	140	315	200	265	70	89	18	273	1830	1600	441	17
10....	232	273	150	257	75	86	29	304	1610	1490	450	121
11....	224	282	125	168	100	77	28	265	2400	944	414	363
12....	241	216	100	144	388	80	10	338	3800	910	338	234
13....	241	249	100	114	296	77	8	321	3210	933	296	570
14....	216	209	150	154	312	74	55	338	1830	944	265	629
15....	187	232	200	154	312	80	69	273	1720	899	212	380
16....	166	290	200	154	273	60	46	234	2080	1220	197	321
17....	158	265	200	168	219	52	39	249	1720	1760	161	242
18....	158	216	200	154	329	98	9	321	2720	834	204	212
19....	151	232	225	168	226	124	45	388	2640	551	371	197
20....	202	232	240	144	242	144	64	530	2390	485	441	183
21....	216	216	250	197	249	95	104	979	2530	414	458	168
22....	249	216	216	154	257	83	176	1270	2420	514	346	154
23....	241	224	195	144	249	74	161	1320	2280	441	281	134
24....	194	194	202	154	288	67	161	1180	2080	414	441	109
25....	187	209	216	212	183	55	129	990	1690	441	212	95
26....	265	202	173	183	197	45	363	910	1370	467	219	86
27....	315	194	180	149	197	60	296	944	1310	354	836	92
28....	324	209	187	129	161	43	273	1240	1230	234	375	80
29....	332	216	136	161	....	22	273	1120	1070	441	204	69
30....	367	202	110	139	....	36	281	1310	967	458	134	64
31....	332	....	127	154	....	67	....	1780	....	1280	80	....
Total	6713	7718	6057	5656	5432	2771	3251	21446	65997	27780	16674	5024
Mean.	217	257	195	182	194	89.4	108	692	2200	896	538	167
Max...	367	367	290	288	388	161	363	1780	3800	1880	2180	629
Min...	106	194	100	114	70	22	8	234	967	234	80	17
Acre-ft.	13300	15300	12000	11200	10800	5500	6430	42500	131000	55100	33100	9940

Discharge of Arkansas River at Pueblo for Year Ending Sept. 30, 1934.
Drainage Area, 4,820 Square Miles. Altitude, 4,675 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	57	162	177	318	200	169	110	294	926	276	86	57
2....	54	140	286	262	223	147	96	350	818	204	81	62
3....	44	140	270	342	223	125	72	326	735	150	926	67
4....	52	154	223	262	169	140	140	350	673	143	262	67
5....	59	207	184	200	200	125	154	342	639	136	117	72
6....	72	223	246	169	125	110	154	326	587	83	192	81
7....	67	177	231	177	132	100	177	310	519	156	426	81
8....	59	215	207	190	147	100	169	401	460	170	147	72
9....	57	215	215	160	110	91	105	717	376	177	125	91
10....	52	246	231	140	177	62	105	936	376	116	177	117
11....	140	254	246	140	200	72	110	1160	334	80	223	147
12....	169	200	215	150	184	125	91	1150	326	68	207	110
13....	169	177	231	160	177	96	86	1290	310	80	192	91
14....	154	125	192	200	177	90	110	1370	270	74	192	91
15....	110	154	200	169	162	75	125	1120	302	48	105	132
16....	67	177	223	215	184	60	117	1200	318	54	154	59
17....	67	154	246	215	140	52	86	1180	302	46	464	57
18....	62	215	192	177	223	62	100	1180	246	143	140	54
19....	57	231	169	177	147	57	125	1200	177	36	132	39
20....	54	239	184	177	125	46	91	1200	132	21	169	44
21....	54	125	207	286	177	36	81	1100	110	8	147	52
22....	72	154	215	392	184	26	72	1050	110	23	147	62
23....	117	154	246	310	184	44	105	896	105	20	169	105
24....	96	162	215	294	110	67	169	896	96	44	132	81
25....	81	169	231	318	105	100	231	789	117	147	132	96
26....	76	154	223	294	100	110	318	761	154	510	154	105
27....	105	169	184	262	154	184	401	761	162	443	100	100
28....	96	125	270	262	169	117	376	744	154	278	86	96
29....	96	100	239	239	....	110	367	700	131	177	100	140
30....	105	100	278	231	....	86	310	847	352	125	96	125
31....	105	....	278	140	....	91	....	1010	....	86	72	....
Total	2625	5217	6954	7028	4608	2875	4753	26080	10317	4122	5852	2553
Mean.	84.7	174	224	227	165	92.7	158	841	344	133	189	85.1
Max...	169	254	286	392	223	184	401	1370	926	510	926	147
Min...	44	100	169	140	100	26	72	294	96	8	72	39
Acre-ft.	5210	10400	13800	14000	9160	5700	9400	51700	20500	8180	11600	5060

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River Near Nepesta for Year Ending Sept. 30, 1933.
Drainage Area, 9,130 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	392	453	....	....	....	352	95	409	2560	808	6120	160
2....	266	555	....	....	....	284	102	384	2310	721	2920	62
3....	266	574	....	....	....	228	62	1510	2020	565	5320	62
4....	266	606	....	....	....	228	81	8400	1940	662	1700	81
5....	249	618	....	....	....	239	184	2290	2410	1260	733	88
6....	234	344	....	....	....	228	212	984	2430	1150	1230	120
7....	184	352	....	....	....	223	239	708	1720	901	721	84
8....	184	328	....	....	....	228	132	360	1780	1040	1040	59
9....	198	320	....	....	....	207	64	384	1940	1130	685	40
10....	284	336	....	....	....	179	48	770	1560	1130	1060	23
11....	344	320	....	....	....	156	51	640	2020	928	770	234
12....	272	392	....	....	....	116	48	721	5970	606	640	1030
13....	284	290	....	....	....	120	37	685	4460	770	584	555
14....	344	308	....	....	....	132	27	624	1820	808	574	808
15....	358	296	....	....	....	144	38	595	1360	834	302	651
16....	308	352	....	....	....	109	48	584	1640	1660	260	444
17....	290	435	....	....	....	84	32	574	2000	1370	198	290
18....	144	344	....	....	....	81	23	629	2020	860	160	255
19....	160	284	....	....	....	59	19	820	2100	418	160	228
20....	179	296	....	....	....	95	22	1010	1980	218	59	234
21....	244	284	....	....	....	120	36	1240	2070	218	184	239
22....	255	284	....	....	....	88	124	1940	1800	336	169	207
23....	255	284	....	....	....	53	109	1920	1980	328	124	174
24....	260	255	....	....	....	38	91	1530	2100	418	507	152
25....	314	223	....	....	....	91	91	1420	1680	302	453	148
26....	344	239	....	....	....	78	76	1260	1700	352	296	148
27....	418	230	....	....	179	98	435	1180	1550	328	479	148
28....	479	230	....	....	123	113	444	1360	1310	278	453	116
29....	498	230	....	....	....	95	517	1420	1200	218	218	84
30....	498	230	....	....	....	70	453	1370	1070	165	360	78
31....	409	....	....	....	....	62	....	1420	....	174	255	....
Total	9180	10292	....	....	....	4398	3940	39146	62500	20956	28734	7007
Mean.	296	343	....	....	....	142	131	1260	2080	676	927	234
Max..	498	618	....	....	....	352	517	8400	5970	1660	6120	1030
Min..	144	223	....	....	....	38	19	384	1070	165	59	28
Acres-ft.	18200	20400	....	....	....	8730	7800	77500	124000	41600	57000	13900

Discharge of Arkansas River Near Nepesta for Year Ending Sept. 30, 1934.
Drainage Area, 9,130 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	90	241	....	....	....	214	145	306	877	251	76	34
2....	89	241	....	....	....	193	178	330	934	164	75	33
3....	79	236	....	....	....	206	227	437	848	123	543	37
4....	72	241	....	....	....	189	206	396	712	64	366	39
5....	74	241	....	....	....	168	214	374	639	185	206	34
6....	60	324	....	....	....	178	210	318	539	79	137	42
7....	92	270	....	....	241	193	236	345	471	23	330	39
8....	81	282	....	....	250	171	232	381	429	19	276	36
9....	82	227	....	....	251	158	222	540	388	52	123	43
10....	92	210	....	....	236	218	197	712	270	89	112	47
11....	101	210	....	....	168	193	202	1040	236	89	218	85
12....	97	210	....	....	210	181	174	1010	218	74	488	116
13....	118	178	....	....	288	185	155	1060	214	54	206	103
14....	131	185	....	....	352	151	151	1370	214	48	189	90
15....	126	131	....	....	337	158	178	1040	241	47	128	324
16....	105	174	....	....	352	145	206	1030	282	34	105	66
17....	128	107	....	....	381	158	181	1020	318	22	352	57
18....	140	140	....	....	352	164	142	1010	306	17	337	53
19....	142	164	....	....	282	181	148	992	265	90	227	53
20....	145	178	....	....	....	171	168	963	218	22	193	45
21....	137	193	....	....	....	168	123	978	174	0	120	44
22....	145	227	....	....	....	137	99	821	145	0	137	52
23....	145	189	....	....	....	148	126	862	128	0	148	60
24....	171	193	....	....	185	181	168	688	128	0	128	64
25....	185	294	....	....	....	184	214	726	103	0	107	64
26....	164	218	....	....	....	186	241	726	89	981	60	74
27....	155	236	....	....	90	189	402	739	116	688	25	84
28....	158	232	....	....	89	185	498	675	114	345	49	96
29....	171	218	....	....	....	168	396	700	84	260	57	46
30....	178	227	....	....	....	168	366	700	71	148	49	27
31....	171	....	....	....	....	164	....	834	....	105	43	....
Total	3824	6417	....	....	....	5453	6406	23123	9771	4073	5610	1987
Mean.	123	214	....	....	250	176	214	746	326	131	181	66.2
Max..	185	324	....	....	....	218	498	1370	934	981	543	324
Min..	60	107	....	....	....	137	99	306	71	0	25	27
Acres-ft.	7560	12700	....	....	13900	10800	12700	45900	19400	8060	11100	3940

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at La Junta for Year Ending Sept 30, 1933.
Drainage Area, 12,200 Square Miles. Altitude, 4,052 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	120	185	75	8	66	7	28	226	511	547	100	72
2....	108	185	69	7	91	8	28	180	557	538	340	71
3....	43	145	59	9	91	28	30	264	538	347	280	71
4....	26	170	43	11	75	28	37	6870	1010	202	557	57
5....	37	170	32	9	81	72	35	9200	800	238	120	56
6....	51	180	32	8	75	48	26	1360	1030	628	368	56
7....	66	140	15	10	70	43	24	567	813	693	456	56
8....	53	136	15	10	70	14	26	391	502	502	432	56
9....	51	140	15	10	65	14	35	368	693	749	375	56
10....	72	145	15	10	65	21	28	354	416	567	267	64
11....	72	145	15	10	60	18	28	347	598	608	148	155
12....	136	150	15	10	55	7	32	280	3550	492	148	1900
13....	104	136	15	10	53	16	35	368	4540	261	167	151
14....	32	136	15	10	40	30	32	325	1330	520	87	167
15....	72	91	15	43	48	41	32	399	391	424	47	102
16....	72	128	15	51	56	30	37	347	538	483	34	59
17....	108	97	15	26	306	22	37	261	1040	368	39	57
18....	185	128	12	21	226	19	37	197	910	163	29	54
19....	165	91	10	6	196	24	39	176	1070	176	27	53
20....	180	108	9	28	140	35	39	274	628	361	28	89
21....	180	94	8	78	170	28	37	492	502	184	29	112
22....	64	81	11	53	97	30	46	638	704	115	29	87
23....	35	84	8	15	91	30	41	868	813	218	207	69
24....	28	94	8	6	56	24	28	567	648	148	202	46
25....	41	108	7	4	46	18	28	368	1010	72	163	41
26....	61	66	8	3	59	21	104	286	375	33	139	38
27....	84	53	8	5	64	22	382	474	529	28	192	36
28....	120	64	8	6	43	14	278	492	456	38	2050	39
29....	108	75	8	4	....	16	226	432	577	30	151	30
30....	132	66	8	39	....	15	264	547	577	71	108	28
31....	160	....	8	59	....	30	....	567	....	33	100	....
Total	2766	3591	596	579	2555	773	2079	28485	27656	9837	7419	3928
Mean..	89.2	120	19.2	18.7	91.2	24.9	69.3	919	922	317	239	131
Max...	185	185	75	78	306	72	382	9200	4540	749	2050	1900
Min...	26	53	7	3	40	7	24	176	375	28	27	28
Acre-ft.	5480	7140	1180	1150	5060	1530	4120	56500	54900	19500	14700	7800

Discharge of Arkansas River at La Junta for Year Ending Sept. 30, 1934.
Drainage Area, 12,200 Square Miles. Altitude, 4,052 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	28	39	30	62	127	20	21	76	331	36	31	19
2....	28	46	80	70	64	70	18	71	372	34	81	16
3....	27	54	114	100	32	75	21	62	315	35	51	12
4....	28	50	162	68	28	60	35	79	245	39	66	12
5....	35	97	199	72	42	55	45	81	215	51	49	14
6....	130	127	124	54	28	55	35	76	163	54	33	15
7....	118	185	134	97	22	35	31	90	115	42	38	14
8....	33	194	140	47	29	30	34	66	79	34	47	14
9....	30	130	127	32	30	70	57	83	44	35	54	18
10....	30	83	127	33	28	62	42	90	37	34	48	17
11....	30	54	154	49	32	52	38	227	27	37	52	14
12....	29	36	127	40	34	57	36	384	36	38	108	19
13....	26	30	140	47	66	33	23	435	20	35	43	19
14....	26	36	140	41	81	31	29	610	16	38	44	19
15....	26	35	144	46	104	23	37	543	29	35	64	2840
16....	24	30	158	55	120	26	34	475	24	34	68	110
17....	24	29	134	50	160	22	30	455	18	34	71	27
18....	26	30	114	46	146	35	31	488	44	34	54	20
19....	26	30	140	42	191	48	31	488	21	32	77	10
20....	23	32	105	31	223	20	52	529	23	30	77	10
21....	26	30	102	30	112	32	39	488	28	28	137	9
22....	30	29	111	30	81	28	42	337	26	29	42	8
23....	23	27	88	46	146	24	40	396	29	30	33	8
24....	24	26	114	66	211	34	42	191	30	29	38	7
25....	32	25	91	213	20	56	44	174	32	28	35	7
26....	37	32	76	105	20	36	42	254	34	36	31	7
27....	37	36	91	114	20	22	86	215	32	23	28	19
28....	36	158	88	137	20	23	90	154	34	21	22	9
29....	47	44	86	144	....	23	115	157	34	20	18	9
30....	80	35	86	147	....	29	63	122	34	26	19	8
31....	40	....	62	140	....	37	....	108	....	28	19	....
Total	1159	1789	3588	2254	2217	1223	1283	8004	2487	1039	1578	3330
Mean..	37.4	59.6	116	72.7	79.2	39.5	42.8	258	82.9	33.5	50.9	111
Max...	130	194	199	213	223	75	115	610	372	54	137	2840
Min...	23	25	30	30	20	20	18	62	16	20	18	7
Acre-ft.	2300	3550	7130	4470	4400	2430	2550	15900	4930	2060	3130	6600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Lamar for Year Ending Sept. 30, 1933.
Drainage Area, 19,800 Square Miles. Altitude, 3,570 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	3	3	4	3	3	2	2	12	4	4	15
2....	1	3	3	4	3	3	2	2	11	4	160	5
3....	1	3	3	5	3	3	2	2	18	4	6830	4
4....	1	3	3	5	3	3	2	4670	12	30	1400	3
5....	1	3	3	5	3	3	2	21200	12	5	426	3
6....	1	3	3	5	3	4	2	7390	17	29	38	3
7....	1	3	3	5	3	4	2	783	43	4	5	3
8....	1	3	3	5	3	3	2	231	61	4	4	3
9....	1	3	3	5	3	3	2	66	19	10	4	3
10....	1	3	3	5	3	3	2	15	20	10	38	87
11....	1	3	3	5	3	3	2	16	30	10	1230	24
12....	1	3	3	6	3	3	2	17	14	13	137	8280
13....	1	3	3	7	3	3	2	17	3960	5	5	2430
14....	2	3	3	7	3	3	2	17	2990	4	4	1110
15....	2	3	3	7	139	3	2	13	795	130	4	435
16....	2	3	3	6	40	3	2	13	45	25	4	68
17....	2	3	3	5	38	3	2	13	10	1280	4	35
18....	2	3	3	5	32	4	2	13	54	611	3	15
19....	2	3	3	87	4	4	2	11	29	242	3	5
20....	2	3	3	5	73	3	2	11	759	23	3	4
21....	3	3	3	5	48	3	2	13	53	20	3	3
22....	3	3	3	4	36	3	2	12	16	20	3	3
23....	3	3	3	3	26	2	2	12	27	15	5	3
24....	3	3	3	3	10	2	2	396	17	9	6	3
25....	3	3	3	4	3	2	2	194	12	4	6	3
26....	3	3	3	4	3	2	4	15	17	4	4	3
27....	3	3	3	4	3	2	3	13	22	4	1120	3
28....	3	3	3	4	3	2	2	14	5	4	6360	3
29....	3	3	3	4	3	2	2	14	4	4	1600	3
30....	3	3	4	3	....	2	2	13	4	4	1390	3
31....	3	....	4	3	....	2	....	13	....	4	226	....
Total	60	90	100	141	583	88	63	35211	9088	2539	21029	12565
Mean.	1.94	3.00	3.23	4.55	20.8	2.84	2.10	1140	303	81.9	678	419
Max...	3	3	4	7	139	4	4	21200	3960	1280	6830	8280
Min...	1	3	3	3	3	2	2	2	4	4	3	3
Acre-ft.	119	179	199	280	1160	175	125	70100	18000	5040	41700	24900

Discharge of Arkansas River at Lamar for Year Ending Sept. 30, 1934.
Drainage Area, 19,800 Square Miles. Altitude, 3,570 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	5	3	3	33	7	3	8	4	3	3	2
2....	3	3	5	3	33	4	3	8	4	3	3	5
3....	3	3	4	3	32	3	3	35	3	3	6	30
4....	3	3	5	3	31	3	3	14	3	10	4	19
5....	3	3	4	3	28	3	3	10	3	3	6	7
6....	3	3	4	3	30	3	3	8	3	3	6	3
7....	3	3	4	3	26	3	3	10	3	3	5	3
8....	3	3	4	3	20	3	3	4	3	3	3	3
9....	3	3	4	3	19	3	3	4	3	3	2	10
10....	3	3	4	3	20	3	3	4	3	3	2	46
11....	3	3	4	6	18	3	3	3	3	2	2	57
12....	3	3	4	9	25	3	3	3	3	2	2	16
13....	3	3	4	12	21	3	3	3	3	2	1	9
14....	3	3	4	12	19	3	3	3	3	2	1	5
15....	3	3	4	14	16	3	3	3	5	2	1	2800
16....	3	3	4	8	19	3	3	3	49	2	1	9600
17....	3	3	4	9	16	3	3	3	10	2	1	145
18....	3	3	4	10	14	3	3	3	5	2	1	14
19....	3	3	3	12	4	3	3	3	5	2	11	8
20....	7	4	3	24	3	3	3	3	5	2	23	7
21....	3	4	3	24	3	3	3	3	4	2	36	5
22....	3	4	3	26	3	3	3	3	4	2	69	3
23....	3	4	3	28	3	3	3	3	4	1	44	3
24....	3	3	3	43	3	3	3	306	3	1	78	3
25....	3	4	3	36	3	3	3	90	3	1	25	3
26....	3	3	3	24	3	3	3	5	3	1	12	3
27....	3	5	3	26	3	3	3	5	3	473	4	3
28....	5	5	3	33	3	3	3	5	3	700	3	3
29....	5	4	3	33	....	3	3	5	3	11	3	3
30....	6	4	3	33	....	3	3	4	3	3	3	3
31....	6	....	3	29	....	3	....	4	....	3	2	....
Total	107	103	112	481	451	98	90	568	156	1254	363	12821
Mean.	3.5	3.4	3.6	15.5	16.1	3.2	3.0	18.3	5.2	40.5	11.7	427
Max...	7	5	5	43	33	7	3	306	49	700	78	9600
Min...	3	3	3	3	3	3	3	3	3	1	1	2
Acre-ft.	215	202	221	953	894	197	179	1130	309	2490	719	25400

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Arkansas River at Holly (State Line) for Year Ending Sept. 30, 1933.
Drainage Area, . . . Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	3	6	20	65	28	6	14	18	31	34	934
2....	5	3	6	20	76	27	6	9	16	31	175	559
3....	5	3	6	20	82	23	6	10	14	26	3280	452
4....	5	3	6	25	79	23	6	82	12	24	1500	344
5....	5	3	6	48	76	23	7	3790	8	22	1380	289
6....	4	3	6	52	94	30	7	4040	8	171	946	264
7....	4	3	6	50	118	27	7	1520	6	76	504	230
8....	5	3	6	50	118	23	6	1130	5	54	269	195
9....	4	3	6	50	90	19	6	355	4	45	217	163
10....	4	3	6	50	90	22	6	264	4	40	249	152
11....	4	4	6	50	90	17	6	204	4	56	577	152
12....	4	4	6	50	90	13	6	171	4	86	629	1890
13....	4	4	6	50	90	12	7	167	427	67	244	3460
14....	4	4	6	50	90	10	7	159	2080	46	148	2340
15....	4	4	6	50	121	9	8	156	460	46	100	1520
16....	4	4	6	50	89	9	6	145	488	89	74	551
17....	4	3	6	50	65	9	6	128	244	179	69	310
18....	3	4	6	72	72	11	6	109	152	1100	56	240
19....	3	4	6	82	45	13	6	94	145	466	48	156
20....	3	5	6	86	40	11	6	82	148	235	54	118
21....	3	4	10	97	40	9	8	74	244	235	56	94
22....	4	4	10	103	40	9	10	63	167	183	65	94
23....	4	4	10	89	40	8	11	52	131	322	48	84
24....	4	4	10	109	69	8	11	46	97	163	445	74
25....	3	5	10	100	58	8	9	46	82	128	84	63
26....	3	5	15	92	56	7	21	43	65	103	76	63
27....	3	6	15	69	40	7	14	40	54	86	1940	61
28....	3	6	15	97	33	6	13	34	48	69	3220	54
29....	3	6	15	89	....	6	13	30	41	46	4280	43
30....	3	6	15	89	....	6	11	26	34	45	4400	34
31....	3	....	15	76	....	6	....	22	....	40	2090	....
Total	119	120	260	1985	2056	439	248	13105	5210	4310	27257	14983
Mean.	3.84	4.00	8.39	64.0	73.4	14.2	8.27	423	174	139	879	499
Max..	5	6	15	109	121	30	21	4040	2080	1100	4400	3460
Min..	3	3	6	20	33	6	6	9	4	22	34	34
Acre-ft.	236	238	516	3940	4080	873	492	26000	10400	8550	54000	29700

Discharge of Arkansas River at Holly (State Line) for Year Ending Sept. 30, 1934.
Drainage Area, . . . Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	27	16	69	77	62	150	15	11	4	7	4	1
2....	26	33	72	77	51	112	15	65	4	6	4	1
3....	24	27	62	60	48	92	16	23	5	6	3	1
4....	23	31	62	50	33	69	15	36	5	5	3	1
5....	22	33	60	40	36	62	15	27	5	51	2	1
6....	22	39	60	40	39	60	15	16	5	6	2	1
7....	21	37	62	50	39	53	15	14	5	64	2	1
8....	21	31	62	70	44	60	15	12	5	1080	2	1
9....	23	34	60	60	46	60	14	11	4	131	2	1
10....	21	37	60	50	65	48	13	10	4	37	2	1
11....	17	36	53	50	77	27	11	10	5	21	2	1
12....	18	37	46	55	74	21	9	10	4	11	1	1
13....	20	37	48	60	79	21	10	10	4	8	1	1
14....	21	39	46	72	77	20	10	14	4	7	1	1
15....	18	42	46	77	72	19	9	12	6	6	1	1
16....	18	42	46	74	69	19	8	10	743	6	1	3890
17....	18	42	44	84	77	44	9	10	433	8	1	951
18....	18	42	41	82	72	69	9	10	116	8	1	150
19....	18	41	36	77	65	92	9	9	53	6	1	31
20....	18	41	74	77	69	100	9	8	34	5	1	16
21....	17	41	60	65	69	53	10	9	20	5	1	14
22....	17	41	51	69	60	34	10	15	14	4	1	13
23....	17	41	49	65	62	26	10	13	10	4	1	13
24....	17	39	48	62	67	24	9	53	8	4	1	13
25....	17	39	44	62	131	23	9	796	7	4	1	13
26....	17	44	18	65	135	20	13	241	6	4	1	13
27....	17	48	166	62	119	17	13	65	6	1540	1	13
28....	17	48	84	58	147	16	10	41	6	701	1	13
29....	15	48	84	60	....	16	10	16	6	175	1	12
30....	13	46	74	62	....	16	8	8	6	36	1	12
31....	14	....	84	62	....	17	....	6	....	10	1	....
Total	592	1152	1871	1974	1984	1460	343	1591	1537	3966	48	5182
Mean.	19.1	38.4	60.4	63.7	70.9	47.1	11.4	51.3	51.2	128	1.55	173
Max..	27	48	166	84	147	150	16	756	743	1540	4	3890
Min..	13	16	18	40	33	16	8	6	4	4	1	1
Acre-ft.	1170	2280	3710	3920	3940	2900	678	3150	3050	7870	95	10300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of South Fork Arkansas River Near Salida for Year Ending Sept. 30, 1933.
Drainage Area, 208 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1.4	39	40	....	....	32	1	3	262	1	0.1	1
2....	1.3	41	38	....	....	30	1	3	245	1	0.5	1
3....	1.3	39	36	....	....	30	1	2	206	1	0.5	1
4....	1.6	37	39	....	....	29	1	5	231	1	1	0.5
5....	1.9	35	42	....	....	30	1	5	235	1	0.5	0.5
6....	2	33	41	....	....	33	1	4	194	1	0.5	0.5
7....	2	32	44	....	....	30	0.5	4	193	1	0.1	0.5
8....	2	27	46	....	....	22	0.5	4	133	1	0.1	0.5
9....	2	30	44	....	....	23	0.5	3	128	1	0.1	0.5
10....	3	30	45	....	....	20	0.5	3	193	0.5	0.1	0.5
11....	4	29	45	44	....	20	0.5	6	206	0.5	0.1	2
12....	3	33	40	....	....	16	0.5	6	220	0.5	0.1	3
13....	3	33	40	....	....	12	0.5	6	206	0.5	0.1	3
14....	3	33	35	....	....	8	0.5	4	167	0.5	0.1	7
15....	4	32	35	....	....	7	0.5	3	132	0.5	0.1	6
16....	5	32	35	....	....	7	0.5	3	121	0.5	0.1	6
17....	4	32	40	....	....	6	0.5	6	140	1	0.1	5
18....	4	32	40	....	....	5	0.5	22	127	1	0.1	3
19....	6	31	41	....	....	4	0.5	83	152	1	0.1	4
20....	6	32	37	....	....	4	1	150	107	0.5	0.1	4
21....	6	29	43	....	....	3	4	199	96	0.5	0.1	4
22....	5	28	38	....	....	3	9	191	74	0.5	0.1	5
23....	5	26	36	....	....	3	15	89	55	0.5	0.1	4
24....	6	30	....	....	37	2	15	80	41	0.5	0.1	3
25....	13	29	....	....	....	2	12	73	30	0	0.1	3
26....	22	35	....	....	....	2	10	107	18	0	0.5	2
27....	36	39	....	....	....	2	8	198	4	0	0.5	0.5
28....	36	36	....	....	....	1	10	201	2	0	0.5	0.5
29....	41	39	....	....	....	2	11	227	1	0	0.5	0.5
30....	47	39	....	....	....	1	7	242	1	0	1	0.5
31....	44	....	....	....	....	1	....	235	....	0	1	....
Total	322	992	....	....	....	390	114	2167	3920	18	9.0	72
Mean.	10.4	33.1	39	40	38	12.6	3.80	69.9	131	0.58	0.29	2.40
Max...	47	41	....	....	....	33	15	242	262	1	1	7
Min...	1	26	....	....	....	1	0.5	2	1	0	0.1	0.5
Acre-ft.	640	1970	2400	2460	2110	775	226	4300	7800	36	18	143

Discharge of South Fork Arkansas River Near Salida for Year Ending Sept. 30, 1934.
Drainage Area, 208 Square Miles. Altitude, 7,038 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0.5	4.2	33	45	43	14	5.4	25	0.8	0.7	0.5	1.1
2....	0.5	5.0	42	46	42	14	1.9	16	0.4	1.0	0.5	1.6
3....	0.6	7.2	44	44	41	14	2.7	22	0.4	1.1	0.6	1.4
4....	0.6	9.5	48	44	40	15	9.2	30	0.4	0.8	0.5	1.2
5....	0.7	12	48	42	39	12	30	22	0.4	0.7	0.6	1.1
6....	0.7	16	48	50	38	9.2	42	22	0.6	0.6	1.8	1.3
7....	0.7	23	46	....	37	7.0	44	30	0.7	0.6	1.2	1.2
8....	0.6	27	47	....	36	6.7	48	38	0.7	0.4	2.1	1.4
9....	0.6	26	47	....	34	6.4	54	45	0.7	0.3	1.0	2.0
10....	0.6	25	53	....	37	5.7	44	129	0.7	0.3	0.8	1.0
11....	0.7	33	49	....	38	5.7	47	141	0.7	0.3	1.1	0.9
12....	0.9	34	47	....	41	7.7	57	95	0.6	0.4	1.1	1.3
13....	1.0	32	47	....	38	6.4	56	60	0.4	0.5	1.1	1.4
14....	1.3	34	52	....	37	5.2	44	27	0.4	0.5	1.0	1.2
15....	1.2	33	50	....	34	7.5	35	14	0.5	0.5	1.0	1.1
16....	1.1	34	51	....	31	6.4	33	10	0.6	0.5	1.0	1.2
17....	1.7	33	54	....	31	7.7	26	7.2	1.3	0.5	1.0	1.0
18....	1.5	33	57	....	31	6.7	20	4.4	1.5	0.5	1.0	1.1
19....	1.4	31	57	....	32	5.7	22	0.7	1.3	0.5	1.1	1.2
20....	1.4	28	54	....	30	5.7	27	0.3	1.3	0.5	1.1	1.4
21....	1.1	27	55	....	29	6.2	46	0.2	1.2	0.4	1.0	2.0
22....	1.2	27	54	....	28	6.4	54	0.3	1.2	0.4	1.1	1.8
23....	1.3	25	54	....	25	6.2	57	0.8	0.9	0.4	1.0	1.7
24....	1.2	28	56	....	20	6.7	52	0.8	0.9	0.8	1.0	5.9
25....	1.3	28	54	....	15	8.0	47	1.1	1.0	0.5	0.8	1.8
26....	2.6	27	54	....	20	8.0	60	1.2	0.8	0.8	0.5	1.7
27....	3.6	26	58	....	13	8.0	51	1.0	0.8	0.7	0.5	1.5
28....	3.4	26	59	....	14	7.7	46	1.1	0.7	0.4	0.6	1.6
29....	2.4	26	50	....	....	7.2	42	1.2	0.7	0.4	0.6	1.7
30....	2.7	27	44	....	....	7.0	37	2.1	0.7	0.4	0.7	1.6
31....	2.8	....	45	....	....	6.4	....	1.9	....	0.4	0.7	....
Total	41.9	746.9	1557	....	894	246.5	1140.2	750.3	23.3	16.8	28.6	46.4
Mean.	1.35	24.9	50.2	43	31.9	7.95	38.0	24.2	0.78	0.54	0.92	1.55
Max...	3.6	34	59	....	....	15	60	141	1.5	1.1	2.1	5.9
Min...	0.5	4.2	33	....	13	5.2	1.9	0.2	0.4	0.3	0.5	0.9
Acre-ft.	83	1480	3090	2640	1770	489	2260	1490	46	33	57	92

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Grape Creek Near Westcliffe for Year Ending Sept. 30, 1933.
Drainage Area, 346 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	18	....	....	....	....	....	59	60	11	4	6
2....	6	18	....	....	....	....	....	43	115	10	4	6
3....	6	18	....	....	....	....	....	38	106	9	6	5
4....	8	17	....	....	....	....	....	35	50	12	7	5
5....	10	16	....	....	....	....	....	35	38	25	18	5
6....	8	16	....	....	....	....	....	35	54	75	18	5
7....	8	17	....	....	....	....	....	35	108	89	49	5
8....	8	18	....	....	....	....	....	35	53	79	62	5
9....	7	16	....	....	....	....	....	35	28	52	44	6
10....	8	....	....	....	....	....	....	30	28	32	50	6
11....	11	....	....	....	....	....	....	30	45	18	23	10
12....	11	....	....	....	....	....	....	30	125	27	15	18
13....	9	....	....	....	....	....	....	30	188	52	11	31
14....	8	....	....	....	....	....	....	30	190	32	8	34
15....	9	....	....	....	....	....	....	50	29	188	60	27
16....	8	....	....	....	....	....	....	43	24	188	77	20
17....	8	....	....	....	....	....	....	25	18	193	64	17
18....	8	....	....	....	....	....	....	20	15	190	39	12
19....	8	....	....	....	....	....	....	18	13	200	24	12
20....	10	....	....	....	....	....	....	13	13	210	18	11
21....	12	....	....	....	....	....	....	15	28	381	16	10
22....	12	....	....	....	....	....	....	19	44	286	14	11
23....	11	....	....	....	....	....	....	24	25	212	11	13
24....	10	....	....	....	....	....	....	32	24	167	10	11
25....	13	....	....	....	....	....	....	82	36	147	10	8
26....	28	....	....	....	....	....	....	188	20	110	9	7
27....	18	....	....	....	....	....	....	312	17	68	5	8
28....	25	....	....	....	....	....	....	462	22	50	4	8
29....	30	....	....	....	....	....	....	365	25	32	3	6
30....	27	....	....	....	....	....	....	147	33	24	3	6
31....	19	....	....	....	....	....	....	40	....	3	6	....
Total	371	....	....	....	....	....	....	926	3834	893	438	334
Mean...	12.0	....	....	....	....	....	....	29.9	128	28.8	14.1	11.1
Max....	30	....	....	....	....	....	....	59	381	89	62	34
Min....	6	....	....	....	....	....	....	13	24	3	4	5
Acre-ft.	738	....	....	....	....	....	....	1840	7620	1770	867	661

Discharge of Grape Creek Near Westcliffe for Year Ending Sept. 30, 1934.
Drainage Area, 346 Square Miles. Altitude, 7,800 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	10	....	....	....	....	25	9	5	2	3	6
2....	5	12	....	....	....	....	25	11	4	2	3	5
3....	6	12	....	....	....	....	25	12	4	2	6	5
4....	8	12	....	....	....	....	29	12	3	2	4	4
5....	9	12	....	....	....	....	21	10	3	2	3	5
6....	8	....	....	....	....	....	26	8	3	2	3	4
7....	8	....	....	....	....	....	43	8	2	2	3	4
8....	7	....	....	....	....	....	32	10	2	2	4	5
9....	6	....	....	....	....	....	18	11	2	2	4	6
10....	7	....	....	....	....	....	13	9	1	2	3	5
11....	8	....	....	....	....	....	12	11	1	2	4	4
12....	8	....	....	....	....	....	10	11	1	2	3	4
13....	7	....	....	....	....	....	10	12	1	2	3	4
14....	8	....	....	....	....	....	12	11	1	2	3	4
15....	8	....	....	....	....	....	12	10	1	1	5	5
16....	6	....	....	....	....	....	10	8	2	1	4	4
17....	6	....	....	....	....	....	13	6	2	2	4	4
18....	8	....	....	....	....	....	17	4	1	2	4	4
19....	8	....	....	....	....	....	12	3	1	2	5	4
20....	8	....	....	....	....	....	10	3	1	1	10	4
21....	7	....	....	....	....	....	10	3	1	2	6	6
22....	8	....	....	....	....	....	8	2	1	2	7	5
23....	8	....	....	....	....	....	8	3	1	2	10	5
24....	8	....	....	....	....	....	10	3	1	2	6	5
25....	8	....	....	....	....	....	11	11	1	3	6	4
26....	8	....	....	....	....	....	10	11	1	3	6	5
27....	8	....	....	....	....	....	14	8	2	11	6	4
28....	8	....	....	....	....	....	14	8	2	5	6	4
29....	8	....	....	....	....	....	10	6	2	3	6	4
30....	8	....	....	....	....	....	8	5	2	2	5	4
31....	10	....	....	....	....	....	....	5	....	2	5	....
Total	232	....	....	....	....	....	478	244	55	74	150	136
Mean...	7.5	....	....	....	....	....	15.9	7.9	1.8	2.4	4.8	4.5
Max....	10	....	....	....	....	....	43	12	5	11	10	6
Min....	4	....	....	....	....	....	8	2	1	1	3	4
Acre-ft.	461	....	....	....	....	....	946	486	107	148	295	268

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of St. Charles River at Burnt Mill for Year Ending Sept. 30, 1933.
Drainage Area, 166 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	....	....	4	4	3	3	94	197	8	75	6
2....	4	....	....	4	4	3	3	200	197	8	50	5
3....	4	....	....	5	4	2	4	300	154	25	20	5
4....	4	....	....	5	4	2	4	300	154	25	15	5
5....	4	....	....	5	4	2	3	308	148	12	10	4
6....	4	....	....	4	4	2	3	349	128	10	10	4
7....	5	....	5	5	3	3	6	320	122	25	11	4
8....	4	....	4	4	3	3	8	233	94	17	17	4
9....	4	....	4	4	3	3	6	212	85	9	13	4
10....	....	....	4	4	3	3	3	190	75	6	10	50
11....	....	....	4	4	3	3	3	179	71	6	9	55
12....	....	....	3	4	4	3	8	172	114	18	8	50
13....	....	....	3	4	4	3	3	148	190	25	6	50
14....	....	....	3	5	4	3	3	116	52	11	6	50
15....	....	....	3	4	4	3	4	99	45	9	6	25
16....	....	....	3	4	4	3	5	119	45	8	7	15
17....	....	....	3	4	4	3	6	172	39	8	17	10
18....	....	....	4	4	4	3	9	175	14	9	8	10
19....	....	....	3	4	4	3	18	247	11	9	8	8
20....	....	....	4	5	4	3	8	233	55	9	7	8
21....	....	....	4	4	4	3	23	300	100	8	7	8
22....	....	....	3	4	4	3	24	291	30	7	7	8
23....	....	....	4	4	4	3	20	227	15	7	7	7
24....	....	....	4	4	4	3	26	216	10	7	7	7
25....	....	....	4	4	4	3	26	168	10	7	7	7
26....	....	....	3	5	4	3	48	161	15	7	7	7
27....	....	....	4	4	4	3	40	179	15	7	15	7
28....	....	....	4	4	4	3	49	168	10	7	10	7
29....	....	....	4	4	....	4	60	201	8	7	20	7
30....	....	....	4	4	....	4	75	168	8	7	7	7
31....	....	....	4	4	....	3	....	161	....	100	6	....
Total	....	....	....	131	107	91	501	6506	2211	428	413	443
Mean	4.0	4.0	3.8	4.23	3.82	2.94	16.7	210	73.7	13.8	13.3	14.8
Max...	....	....	....	5	4	4	75	349	197	100	75	55
Min...	....	....	....	4	3	2	3	94	8	6	6	4
Acre-ft.	246	238	234	260	212	181	994	12900	4390	848	818	881

Discharge of St. Charles River at Burnt Mill for Year Ending Sept. 30, 1934.
Drainage Area, 166 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	6	5	....	....	6	20	36	11	7	4	3
2....	6	6	7	....	....	8	22	35	10	6	4	2
3....	6	7	6	....	....	8	25	29	9	6	4	3
4....	6	6	8	....	....	8	34	26	10	10	4	3
5....	6	6	8	....	....	8	29	23	10	5	4	3
6....	5	5	....	....	....	10	15	20	10	5	3	3
7....	5	7	....	....	....	10	15	19	10	4	3	3
8....	5	8	....	....	....	6	15	17	8	3	3	3
9....	5	7	....	....	....	6	15	18	8	3	3	3
10....	5	6	....	....	....	8	15	21	7	3	4	3
11....	5	6	....	....	....	10	15	22	6	3	4	4
12....	5	10	....	....	....	10	15	18	6	3	4	3
13....	5	11	....	....	....	12	15	15	3	3	3	3
14....	5	11	....	....	....	12	15	19	3	3	4	3
15....	5	8	....	....	....	13	15	16	4	3	4	3
16....	5	6	....	....	....	14	15	14	7	3	5	4
17....	6	6	....	....	....	15	16	12	9	3	6	3
18....	6	6	....	....	....	8	13	14	11	3	5	3
19....	6	6	....	....	....	14	9	14	10	3	5	2
20....	6	7	....	....	....	13	14	12	5	2	6	2
21....	6	7	....	....	....	14	25	12	5	2	6	3
22....	6	6	....	....	....	16	33	19	5	2	4	3
23....	6	6	....	....	....	16	34	16	5	2	6	3
24....	6	6	....	....	....	12	23	13	4	2	6	3
25....	6	6	....	....	....	13	25	12	5	3	5	3
26....	6	5	....	....	....	12	27	12	6	3	4	3
27....	6	5	....	....	....	10	30	12	6	9	3	3
28....	6	6	....	....	....	10	27	12	6	7	4	3
29....	7	5	....	....	....	11	23	10	5	5	5	3
30....	7	6	....	....	....	12	23	12	5	4	4	3
31....	7	....	....	....	....	19	....	12	....	4	3	....
Total	178	199	....	....	....	344	617	542	209	124	132	89
Mean	5.7	6.6	....	....	....	11.1	20.6	17.5	7.0	4.0	4.3	3.0
Max...	7	11	....	....	....	19	34	36	11	10	6	4
Min...	5	5	....	....	....	6	9	10	3	2	3	2
Acre-ft.	350	393	....	....	....	682	1230	1080	417	246	264	179

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Huerfano River at Manzanares Crossing for Year Ending Sept. 30, 1933.
Drainage Area, 76 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	17	....	....	....	....	....	15	22	213	68	27	19
2....	16	....	....	....	....	....	15	25	204	68	28	20
3....	17	....	....	....	....	....	15	24	180	74	38	19
4....	18	....	....	....	....	....	15	15	164	119	62	18
5....	17	....	....	....	....	....	15	27	152	104	69	18
6....	15	....	....	....	....	....	14	27	172	82	108	18
7....	15	....	....	....	....	....	12	24	159	47	74	16
8....	16	....	....	....	....	....	13	25	126	44	63	15
9....	16	....	....	....	....	....	14	27	140	41	53	40
10....	16	....	....	....	....	....	13	27	164	41	48	70
11....	16	....	....	....	....	....	14	27	159	41	43	95
12....	17	....	....	....	....	....	16	23	152	54	32	95
13....	15	....	....	....	....	....	12	25	159	41	23	89
14....	15	....	....	....	....	....	14	26	186	36	24	102
15....	15	....	....	....	....	....	14	27	167	38	22	80
16....	15	....	....	....	....	....	14	32	167	43	22	64
17....	14	....	....	....	....	....	15	38	164	43	21	53
18....	14	....	....	....	....	....	17	49	154	37	19	52
19....	15	....	....	....	....	....	17	68	149	37	26	54
20....	14	....	....	....	....	....	11	82	132	33	26	48
21....	14	....	....	....	....	....	12	93	128	32	24	41
22....	16	....	....	....	....	....	14	102	115	33	22	37
23....	15	10	....	....	....	....	15	84	98	31	22	35
24....	15	....	....	....	....	....	22	87	97	28	21	33
25....	15	....	....	....	....	....	22	97	89	28	20	30
26....	15	....	....	....	....	....	23	117	79	27	24	30
27....	15	....	....	....	....	....	22	149	82	23	25	30
28....	15	....	....	....	....	....	23	149	82	21	22	27
29....	15	....	....	....	....	....	24	164	79	22	23	25
30....	15	....	....	....	....	....	24	186	68	17	24	25
31....	15	....	....	....	....	....	....	195	....	19	20	....
Total	478	....	....	....	....	....	486	2063	4180	1372	1075	1298
Mean.	15.4	12	....	....	....	....	16.2	66.5	139	44.3	34.7	43.3
Max...	18	....	....	....	....	....	24	195	213	119	108	102
Min...	14	....	....	....	....	....	11	15	68	17	19	15
Acre-ft.	947	714	....	....	....	....	964	4090	8270	2720	2130	2580

Discharge of Huerfano River at Manzanares Crossing for Year Ending Sept. 30, 1934.
Drainage Area, 76 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	22	18	....	....	....	....	....	55	42	21	21	12
2....	21	17	....	....	....	....	....	52	38	19	20	12
3....	22	16	....	....	....	....	....	49	38	19	19	12
4....	21	16	....	....	....	....	....	42	34	18	18	13
5....	20	18	....	....	....	....	....	40	32	17	18	13
6....	17	20	....	....	....	....	....	43	31	16	17	14
7....	18	20	....	....	....	....	....	58	28	16	17	14
8....	17	19	....	....	....	....	....	66	27	16	16	15
9....	16	18	....	....	....	....	....	68	28	15	15	21
10....	17	16	....	....	....	....	....	80	26	16	14	14
11....	17	....	....	....	....	....	....	74	26	18	13	14
12....	17	....	....	....	....	....	....	73	27	16	12	14
13....	16	....	....	....	....	....	....	66	25	14	12	14
14....	15	....	....	....	....	....	....	59	24	16	11	13
15....	15	....	....	....	....	....	....	56	23	15	15	14
16....	14	....	....	....	....	....	....	54	26	14	17	13
17....	13	....	....	....	....	....	....	51	26	16	22	12
18....	13	....	....	....	....	....	35	50	23	19	27	12
19....	12	....	....	....	....	....	36	54	21	17	22	12
20....	12	....	....	....	....	....	36	49	20	16	22	14
21....	13	....	....	....	....	....	41	49	20	16	19	13
22....	13	....	....	....	....	....	50	49	18	16	19	14
23....	14	....	....	....	....	....	54	51	18	18	18	41
24....	14	....	....	....	....	....	55	50	19	22	15	74
25....	15	....	....	....	....	....	60	49	18	22	13	54
26....	15	....	....	....	....	....	60	49	18	21	15	44
27....	14	....	....	....	....	....	59	46	18	86	14	32
28....	15	....	....	....	....	....	55	49	16	25	14	24
29....	16	....	....	....	....	....	54	55	28	24	13	28
30....	16	....	....	....	....	....	52	56	82	23	11	27
31....	16	....	....	....	....	....	....	52	....	22	11	....
Total	496	....	....	....	....	....	....	1694	820	629	510	623
Mean.	16.0	....	....	....	....	....	....	54.6	27.3	20.3	16.4	20.8
Max...	22	....	....	....	....	....	....	80	82	86	27	74
Min...	12	....	....	....	....	....	....	40	16	14	11	12
Acre-ft.	984	....	....	....	....	....	....	3360	1620	1250	1010	1240

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cucharas River Near La Veta for Year Ending Sept. 30, 1933.
Drainage Area, 75 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	2	....	....	....	....	1	13	133	43	10	9
2....	3	2	2	....	....	....	2	16	139	37	9	8
3....	3	2	....	....	....	....	4	19	124	35	12	8
4....	4	2	....	....	....	....	4	11	114	38	17	5
5....	4	2	....	....	....	....	3	18	114	40	19	5
6....	5	2	....	....	....	....	4	23	114	33	15	4
7....	4	2	....	....	....	....	3	28	108	31	27	4
8....	3	3	....	....	....	....	3	39	94	28	19	4
9....	3	3	....	....	....	....	4	42	88	28	15	8
10....	3	3	....	....	....	....	4	59	87	27	14	11
11....	4	2	....	....	....	....	3	76	88	21	14	17
12....	4	4	....	....	....	....	2	80	105	21	14	20
13....	3	3	....	....	....	....	2	67	108	21	14	20
14....	3	3	....	....	....	....	2	58	118	20	14	19
15....	3	2	....	....	....	....	4	46	112	20	14	8
16....	2	2	....	....	....	....	4	51	110	27	13	4
17....	4	2	....	....	....	....	3	63	104	36	13	4
18....	2	2	....	....	....	....	4	70	103	30	10	6
19....	2	2	....	....	....	....	4	88	101	26	9	6
20....	2	2	....	....	....	....	2	114	94	25	9	6
21....	2	2	....	....	....	....	1	119	107	23	9	3
22....	2	2	....	....	....	....	24	119	108	21	6	3
23....	3	2	....	....	....	....	8	105	104	21	7	2
24....	3	3	....	....	....	....	6	96	96	21	8	3
25....	3	2	....	....	....	....	8	90	92	20	8	2
26....	4	2	....	....	....	....	8	87	89	18	9	1
27....	4	2	....	....	....	....	10	94	81	14	10	1
28....	4	2	....	....	....	....	19	108	72	13	10	1
29....	4	2	....	....	....	....	21	118	58	9	10	1
30....	2	2	....	....	....	....	16	121	49	9	9	1
31....	2	....	....	....	....	....	....	125	....	9	9	....
Total	97	67	....	....	....	....	133	2163	3014	765	376	194
Mean.	3.13	2.23	....	....	....	....	6.1	69.8	100	24.7	12.1	6.47
Max...	5	4	....	....	....	....	24	125	139	43	27	20
Min...	2	2	....	....	....	....	1	11	49	9	6	1
Acre-ft.	192	133	....	....	....	....	363	4290	5950	1520	744	385

Discharge of Cucharas River Near La Veta for Year Ending Sept. 30, 1934.
Drainage Area, 75 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2	1	....	....	....	....	10	31	27	6	5	2
2....	3	1	....	....	....	....	13	28	25	6	5	2
3....	4	4	....	....	....	....	13	24	23	5	5	2
4....	5	6	....	....	....	....	14	23	18	5	5	2
5....	5	3	....	....	....	....	14	19	15	6	4	2
6....	4	4	....	....	....	....	11	19	17	6	4	1
7....	4	5	....	....	....	....	12	22	18	5	5	1
8....	5	5	....	....	....	....	14	24	20	6	5	1
9....	6	....	....	....	....	....	12	26	23	5	5	2
10....	6	....	....	....	....	....	19	30	22	4	4	2
11....	8	....	....	....	....	....	22	32	20	4	4	1
12....	8	....	2	....	....	....	24	36	18	4	4	1
13....	8	....	2	....	....	....	26	35	17	4	4	1
14....	8	....	2	....	....	....	29	36	18	4	4	1
15....	5	....	2	....	....	....	19	34	19	4	4	1
16....	5	....	2	....	....	....	19	30	16	5	4	1
17....	5	....	2	....	....	....	21	26	16	5	4	1
18....	5	....	2	....	....	....	23	23	14	5	3	1
19....	6	....	2	....	....	....	22	23	11	5	3	1
20....	7	....	....	....	....	....	24	24	11	5	4	1
21....	6	....	....	....	....	....	25	24	7	6	4	2
22....	7	....	....	....	....	....	29	38	6	6	4	1
23....	8	....	....	....	....	....	31	33	6	7	3	1
24....	8	....	....	....	....	....	33	32	6	6	3	1
25....	5	....	....	....	....	....	34	36	6	6	3	1
26....	3	....	....	....	....	....	35	38	6	10	3	1
27....	2	....	....	....	....	....	34	38	7	13	3	1
28....	2	....	....	....	....	....	31	29	7	13	4	1
29....	2	....	....	....	....	....	30	31	6	7	4	1
30....	2	....	....	....	....	....	29	35	6	6	2	1
31....	1	....	....	....	....	....	....	30	....	6	2	....
Total	155	....	....	....	....	....	672	909	431	185	120	38
Mean.	5.0	3.6	2.0	....	....	....	22.4	29.3	14.4	6.0	3.9	1.3
Max...	8	....	....	....	....	....	35	38	27	13	5	2
Min...	1	....	....	....	....	....	10	19	6	4	2	1
Acre-ft.	307	214	123	....	....	....	1330	1800	857	369	240	77

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Purgatoire River at Trinidad for Year Ending Sept. 30, 1933.
Drainage Area, 742 Square Miles. Altitude, 5,990 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	27	24	20	14	23	24	10	15	130	181	719	25
2.....	20	21	21	14	23	18	9	15	158	164	41	22
3.....	19	21	15	14	23	16	9	21	135	162	49	20
4.....	20	21	18	14	23	15	12	52	133	149	164	19
5.....	25	21	16	14	23	14	11	69	143	198	160	16
6.....	26	21	13	16	21	14	10	66	155	164	352	13
7.....	25	22	11	16	21	14	10	61	158	227	1630	11
8.....	27	22	9	16	21	15	10	61	139	176	217	11
9.....	26	22	12	16	21	12	8	42	131	169	95	12
10.....	25	21	12	16	21	10	8	35	130	184	70	21
11.....	25	22	12	18	21	9	8	31	145	153	68	360
12.....	26	23	12	18	21	8	8	32	247	143	70	149
13.....	25	25	12	18	21	9	8	36	244	135	66	90
14.....	24	21	12	20	26	9	8	50	255	113	62	94
15.....	24	20	12	20	34	10	8	62	264	445	57	60
16.....	24	20	12	24	26	11	9	60	281	447	44	55
17.....	24	20	13	24	23	12	10	50	275	133	42	55
18.....	24	20	13	24	26	18	9	43	303	105	42	55
19.....	24	22	13	24	24	15	8	50	294	60	36	54
20.....	23	22	14	24	26	15	9	66	409	46	37	49
21.....	25	20	14	24	25	12	10	81	354	61	38	46
22.....	26	20	14	24	24	12	12	94	336	82	39	42
23.....	25	23	14	24	26	10	12	103	323	55	40	39
24.....	26	19	14	24	24	10	12	97	294	45	41	36
25.....	28	18	14	24	22	8	10	97	294	44	42	31
26.....	24	16	14	24	20	8	9	92	275	34	43	28
27.....	24	19	14	24	25	8	11	95	244	33	46	28
28.....	26	17	14	24	24	7	9	111	233	33	41	28
29.....	24	18	14	24	....	8	13	126	211	32	37	27
30.....	24	16	14	23	....	8	13	130	191	32	33	24
31.....	24	....	14	23	....	12	....	130	....	41	29	....
Total	759	617	426	626	658	371	293	2073	6884	4046	4450	1520
Mean.	24.5	20.6	13.7	20.2	23.5	12.0	9.8	66.9	229	131	144	50.7
Max.	28	25	....	....	34	24	13	130	409	447	1630	360
Min.	19	16	....	....	....	7	8	15	130	32	29	11
Acre-ft.	1510	1230	842	1240	1310	738	583	4110	13600	8060	8850	3020

Discharge of Purgatoire River at Trinidad for Year Ending Sept. 30, 1934.
Drainage Area, 742 Square Miles. Altitude, 5,990 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	22	34	17	14	14	18	22	44	132	54	22	24
2.....	22	49	21	17	16	17	20	44	124	44	25	24
3.....	40	49	18	15	14	20	20	41	114	33	28	28
4.....	37	51	20	15	15	20	25	42	111	137	43	24
5.....	30	53	19	17	15	17	27	41	111	43	42	21
6.....	30	53	14	6	15	19	28	36	91	28	33	20
7.....	30	68	22	6	17	20	27	38	68	22	48	34
8.....	32	58	24	11	17	18	27	44	60	17	26	27
9.....	29	51	21	9	15	21	27	51	57	17	22	42
10.....	26	49	23	18	10	18	32	84	54	16	30	31
11.....	24	42	22	22	18	20	32	84	48	16	36	20
12.....	24	38	18	20	18	18	33	84	39	16	43	18
13.....	26	32	20	18	29	19	33	84	38	14	41	13
14.....	30	29	15	18	34	20	34	97	44	13	46	21
15.....	35	23	12	24	29	20	37	106	58	19	39	36
16.....	29	20	10	22	26	21	41	82	66	21	47	23
17.....	32	21	6	15	27	26	44	80	51	25	73	19
18.....	35	20	13	15	26	73	43	79	48	19	57	17
19.....	40	16	14	22	22	26	39	80	38	19	54	14
20.....	35	15	18	11	26	20	37	80	29	16	42	12
21.....	30	15	20	14	26	20	41	88	26	19	37	12
22.....	22	16	18	22	21	21	41	170	25	24	32	9
23.....	22	15	17	22	24	22	46	111	23	17	27	8
24.....	21	13	13	22	30	28	48	111	27	34	23	7
25.....	20	15	15	21	29	27	56	150	31	77	27	17
26.....	20	15	14	15	29	25	62	147	27	272	47	17
27.....	20	16	18	13	29	23	66	129	25	350	39	14
28.....	24	17	13	13	22	22	60	132	38	71	31	14
29.....	23	15	11	17	....	22	51	129	47	33	28	14
30.....	26	15	13	13	....	22	48	144	51	42	26	13
31.....	27	....	14	13	....	22	....	156	....	25	24	....
Total	863	923	513	500	613	705	1147	2788	1701	1553	1138	593
Mean.	27.8	30.8	16.5	16.1	21.9	22.7	38.2	89.9	56.7	50.1	36.7	19.8
Max.	40	68	24	24	34	73	66	170	132	350	73	42
Min.	20	13	6	6	10	17	20	36	23	13	22	7
Acre-ft.	1710	1830	1010	990	1220	1400	2270	5530	3370	3080	2260	1180

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Purgatoire River at Nine Mile Dam for Year Ending Sept. 30, 1933.
Drainage Area, 2,900 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	11	18	21	4	31	21	3	13	0	19	497	108
2....	17	18	21	17	58	20	3	13	0	14	520	35
3....	16	16	21	19	54	18	2	476	0	12	578	26
4....	10	16	21	17	25	19	2	1520	0	7	282	21
5....	10	16	21	20	44	17	13	728	0	5	529	13
6....	12	14	18	19	15	18	11	211	0	16	116	12
7....	12	18	10	19	10	20	7	133	0	81	81	10
8....	18	20	5	44	5	18	5	79	0	112	211	5
9....	15	22	5	37	5	15	3	67	0	66	360	4
10....	10	24	5	50	5	14	6	40	0	46	282	19
11....	10	29	5	60	4	15	6	33	0	22	174	676
12....	8	20	5	32	3	14	6	24	498	101	102	1910
13....	8	24	5	20	2	12	5	23	529	264	72	1340
14....	10	21	5	20	5	20	0	18	798	119	46	660
15....	12	21	5	54	58	21	7	17	302	60	54	399
16....	13	21	4	37	66	16	5	16	142	458	227	282
17....	14	22	4	34	72	15	4	16	81	1050	96	138
18....	10	23	4	28	46	15	3	16	93	538	54	70
19....	12	22	4	50	54	13	0	14	48	367	44	43
20....	14	21	4	60	60	14	0	10	74	245	56	34
21....	14	20	4	60	52	16	3	10	122	170	37	26
22....	14	22	4	56	35	10	4	8	282	126	21	46
23....	14	20	4	54	39	15	7	0	184	19	13	29
24....	15	18	5	60	44	10	4	0	108	12	91	20
25....	18	20	8	54	43	6	0	0	88	11	37	16
26....	17	18	12	50	37	4	3	0	64	6	17	14
27....	17	19	34	56	31	3	14	0	44	3	740	14
28....	18	17	31	37	27	3	11	0	33	0	464	13
29....	18	19	31	39	....	3	19	0	32	0	1650	12
30....	17	21	15	72	....	3	20	0	28	0	492	12
31....	17	....	8	35	....	3	....	0	....	0	264	....
Total	421	600	349	1214	930	411	176	3485	3550	3949	8207	6007
Mean.	13.6	20.0	11.3	39.2	33.2	13.3	5.87	112	118	127	265	200
Max...	18	29	34	72	72	21	20	1520	798	1050	1650	1910
Min...	8	14	4	4	2	3	0	0	0	0	13	4
Acre-ft.	836	1190	695	2410	1840	818	349	6890	7020	7810	16300	11900

Discharge of Purgatoire River at Nine Mile Dam for Year Ending Sept. 30, 1934.
Drainage Area, 2,900 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	11	10	21	18	16	32	13	7	0	475	8	178
2....	10	14	40	19	16	33	14	4	0	186	148	6
3....	7	14	38	23	17	26	11	3	0	115	122	1
4....	7	15	37	21	16	21	11	3	0	25	33	0
5....	72	10	35	22	17	19	10	3	0	60	19	0
6....	118	10	31	18	17	17	10	2	0	226	11	0
7....	46	17	30	14	17	15	10	2	0	29	4	0
8....	37	21	25	14	17	19	8	0	0	190	3	0
9....	19	23	21	14	17	17	8	0	0	70	1	0
10....	14	25	23	14	19	14	9	0	0	42	1	1
11....	12	23	22	14	21	14	8	0	0	13	0	0
12....	12	25	23	14	21	17	6	0	0	8	0	32
13....	12	40	21	15	22	14	4	0	0	8	44	13
14....	10	30	21	15	35	13	4	0	0	0	49	6
15....	10	22	18	15	28	12	4	0	80	0	18	11300
16....	8	22	26	15	26	14	3	0	848	0	112	343
17....	8	21	23	15	23	14	3	0	370	4	410	109
18....	8	19	22	21	26	10	3	0	246	48	297	58
19....	8	18	16	21	33	15	2	0	118	43	159	167
20....	8	19	14	17	30	14	3	0	42	14	343	100
21....	8	17	16	17	26	13	3	51	23	8	326	30
22....	10	17	20	17	32	16	3	122	20	1	109	20
23....	10	15	20	18	33	16	2	230	12	1	42	18
24....	9	14	10	17	25	14	2	125	3	0	48	16
25....	9	14	10	18	20	14	2	37	2	0	22	12
26....	10	14	10	19	20	12	2	10	2	212	15	10
27....	10	14	10	17	20	12	5	7	3	2010	8	10
28....	10	14	12	17	26	18	5	10	5	450	3	11
29....	10	14	12	17	....	15	3	3	1	221	1	10
30....	10	13	19	14	....	16	2	1	0	109	0	9
31....	11	....	19	14	....	12	....	0	....	48	114	....
Total	544	544	665	524	637	508	173	620	1775	4616	2470	12460
Mean.	17.5	18.1	21.5	16.9	22.8	16.4	5.8	20	59.2	149	79.7	415
Max...	118	40	40	23	35	33	14	230	848	2010	410	11300
Min...	7	10	10	14	16	10	2	0	0	0	0	0
Acre-ft.	1080	1080	1320	1040	1270	1010	345	1230	3520	9160	4900	24700

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Purgatoire River at Highland (Carmen) Dam for Year Ending Sept. 30, 1933.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	12	14	.....	.....	8	3	11	0	14	1	250
2....	0	12	14	.....	.....	1	2	6	0	11	388	184
3....	0	13	14	.....	.....	3	1	344	0	7	323	40
4....	0	11	12	.....	.....	10	1	2420	0	43	93	26
5....	0	11	12	.....	.....	6	1	916	0	5	93	18
6....	0	11	12	.....	.....	12	1	424	0	5	135	13
7....	0	12	10	.....	.....	17	1	222	0	10	36	8
8....	0	15	5	.....	.....	15	1	208	0	13	195	5
9....	0	16	5	25	.....	12	1	158	0	50	369	5
10....	0	16	5	.....	.....	10	1	147	0	20	250	4
11....	0	16	5	.....	.....	10	1	104	0	22	179	1080
12....	0	16	5	.....	.....	9	1	54	55	14	79	2400
13....	0	16	5	.....	.....	7	1	47	569	104	34	1290
14....	0	16	5	.....	.....	26	1	19	670	115	30	1110
15....	0	16	5	.....	.....	25	1	18	323	329	24	349
16....	0	14	5	.....	.....	21	1	15	158	188	30	513
17....	0	19	5	.....	.....	15	1	13	115	1410	65	272
18....	0	19	5	.....	297	11	1	11	70	482	27	90
19....	0	17	5	.....	267	11	1	12	34	278	22	60
20....	0	16	5	.....	233	12	1	10	147	139	19	23
21....	0	15	5	.....	278	13	1	8	316	82	15	23
22....	4	15	6	.....	250	13	1	6	336	17	6	20
23....	4	14	6	.....	2:8	9	6	5	228	18	4	18
24....	9	14	6	.....	198	9	5	3	179	15	185	15
25....	10	14	7	.....	150	10	6	1	115	10	50	12
26....	10	14	7	.....	22	8	7	0	93	7	12	10
27....	10	15	7	.....	20	7	12	0	45	5	2800	8
28....	10	14	7	.....	27	6	14	0	19	4	2150	6
29....	11	13	7	.....	.....	5	7	0	16	1	1320	4
30....	12	14	7	.....	.....	5	10	0	15	1	569	2
31....	12	.....	7	.....	.....	6	.....	0	.....	1	342	.....
Total	92	436	225	.....	.....	332	92	5182	3503	3420	9845	7858
Mean.	3.0	14.5	7.3	19.0	72.1	10.7	3.1	167	117	110	318	262
Max..	12	19	14	.....	.....	26	14	2420	670	1410	2800	2400
Min..	0	11	5	.....	.....	1	1	0	0	1	1	2
Acre-ft.	184	863	449	1170	4000	658	184	10300	6960	6760	19600	15600

Discharge of Purgatoire River at Highland (Carmen) Dam for Year Ending Sept. 30, 1934.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	6	17	9	6	23	11	0	0	175	63	234
2....	5	6	28	9	4	19	8	0	0	100	78	85
3....	4	6	25	9	4	18	8	0	0	32	162	17
4....	3	4	24	10	6	17	8	0	0	25	80	8
5....	3	7	22	10	6	15	7	0	0	33	25	4
6....	3	6	21	10	7	12	7	0	0	41	14	0
7....	49	6	19	10	16	15	8	0	0	55	9	0
8....	30	6	18	9	16	15	7	0	0	319	8	0
9....	7	12	17	6	19	16	6	0	0	108	4	20
10....	7	19	17	6	20	14	5	0	0	79	2	32
11....	7	20	14	10	20	12	4	0	0	22	0	16
12....	5	15	14	10	13	11	3	0	0	10	22	7
13....	4	14	14	6	8	12	1	0	0	8	34	3
14....	2	7	14	6	9	13	0	0	0	4	20	1
15....	1	13	14	6	10	12	0	0	0	1	24	2300
16....	0	13	14	6	18	10	0	0	324	0	15	2500
17....	0	10	13	10	17	7	0	0	289	0	96	500
18....	0	12	13	6	18	2	0	0	86	0	171	100
19....	0	13	13	12	20	17	0	0	19	13	140	75
20....	0	14	12	12	24	15	0	0	16	6	90	50
21....	1	13	12	12	25	13	0	0	13	2	275	40
22....	7	10	12	13	23	11	0	97	7	1	108	30
23....	8	9	12	11	14	10	0	112	4	0	126	25
24....	10	10	11	9	14	16	0	74	1	0	90	20
25....	12	12	11	6	15	14	0	48	51	0	60	15
26....	12	12	11	8	25	13	0	23	81	60	18	10
27....	10	14	10	10	18	12	0	18	16	2390	13	10
28....	10	12	10	8	17	11	0	18	4	500	12	10
29....	9	11	4	9	.....	13	0	12	3	195	4	10
30....	8	12	10	10	.....	17	0	6	1	126	7	9
31....	6	.....	10	9	.....	13	.....	1	.....	93	5	.....
Total	228	324	456	277	412	418	83	409	915	4398	1775	6131
Mean.	7.4	10.8	14.7	8.9	14.7	13.5	2.8	13.2	30.5	142	57.3	204
Max..	49	20	28	13	25	23	11	112	324	2390	275	2500
Min..	0	4	4	6	4	2	0	0	0	0	0	0
Acre-ft.	455	643	904	547	816	830	167	812	1810	8730	3520	12100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Wild Horse Creek at Mouth Near Holly for Year Ending Sept. 30, 1933.
Drainage Area, Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	0	22	0	1	15	0	0	0	0	0	16
2....	0	0	17	0	1	13	0	0	0	0	0	14
3....	0	0	0	0	1	14	0	8	0	0	0	10
4....	0	0	0	0	1	13	0	18	0	0	0	5
5....	0	0	0	0	1	2	0	12	0	0	0	1
6....	0	0	0	1	0	8	0	15	0	1	0	0
7....	0	13	0	6	0	8	0	6	0	1	0	0
8....	0	14	0	3	0	10	0	4	0	0	0	0
9....	0	14	0	4	0	5	0	3	0	0	0	0
10....	0	15	0	4	0	1	0	2	0	0	69	0
11....	2	13	0	4	0	1	0	3	0	0	5	0
12....	0	19	0	4	0	0	0	2	0	0	1	0
13....	0	15	0	5	0	0	0	0	0	0	0	0
14....	0	10	0	0	0	0	0	0	0	0	0	2
15....	0	10	0	0	0	0	0	0	2	0	0	3
16....	0	9	0	2	0	0	0	0	8	0	0	4
17....	0	9	0	1	0	0	0	0	2	0	0	6
18....	0	9	0	0	0	0	0	0	0	1	0	9
19....	0	11	0	0	1	1	0	0	0	2	0	13
20....	0	14	0	0	1	0	0	0	0	2	0	4
21....	0	14	3	0	7	0	0	0	0	1	14	1
22....	0	13	9	0	12	0	0	0	0	0	7	0
23....	0	16	8	0	18	0	0	0	0	6	5	0
24....	0	18	4	0	16	0	0	0	0	4	31	0
25....	0	16	0	1	9	0	0	0	0	1	6	0
26....	0	12	0	2	13	0	0	0	0	0	6	0
27....	9	8	0	0	26	0	0	0	0	0	119	0
28....	8	10	0	0	22	0	0	0	0	0	52	0
29....	10	11	0	1	....	0	0	0	0	0	23	0
30....	7	13	0	1	....	0	0	0	0	0	5	0
31....	5	....	0	1	....	1	....	0	....	0	7	....
Total	41	306	63	40	130	85	0	73	12	19	350	88
Mean.	1.32	10.2	2.03	1.29	4.64	2.74	0	2.35	0.40	0.61	11.3	2.93
Max..	10	19	22	6	26	15	0	18	8	6	119	16
Min..	0	0	0	0	0	0	0	0	0	0	0	0
Acre-ft.	81	607	125	79	258	168	0	144	24	38	695	174

Discharge of Wild Horse Creek at Mouth Near Holly for Year Ending Sept. 30, 1934.
Drainage Area, Square Miles. Altitude, 3,387 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	0	0	0	0	0	2	8	7	0	0	0	0
2....	0	0	0	0	0	12	9	26	0	0	0	0
3....	0	2	0	0	0	6	9	3	0	0	0	0
4....	0	2	0	0	0	2	10	1	0	0	0	0
5....	0	0	0	0	0	1	9	0	0	0	0	0
6....	0	0	0	0	0	1	10	0	0	0	0	0
7....	0	0	0	0	0	1	6	0	0	7	0	0
8....	0	0	0	0	0	1	0	0	0	34	0	0
9....	0	2	0	0	0	11	0	0	0	0	0	0
10....	0	3	0	0	0	2	0	0	0	4	0	0
11....	0	3	0	0	0	1	0	0	0	0	0	0
12....	0	2	0	0	0	1	0	0	0	0	0	0
13....	0	3	0	0	0	0	0	0	0	0	0	0
14....	0	3	0	0	0	0	0	0	0	0	11	0
15....	0	0	8	0	0	0	0	0	0	0	0	0
16....	0	0	7	0	0	0	0	0	0	0	0	0
17....	0	0	0	0	0	0	0	0	0	9	0	0
18....	0	0	0	0	0	0	0	0	0	0	0	0
19....	0	0	0	0	0	0	0	0	0	0	0	0
20....	0	0	0	0	0	0	0	0	0	0	0	0
21....	0	0	0	0	130	0	0	0	0	0	0	0
22....	0	0	0	0	0	0	0	0	0	0	0	0
23....	0	0	0	0	0	0	0	0	0	0	0	0
24....	0	0	0	0	0	0	0	0	0	0	0	0
25....	0	0	0	0	0	0	0	0	0	0	0	0
26....	0	0	0	0	0	0	0	0	0	0	0	0
27....	0	0	0	0	0	0	0	0	0	0	0	0
28....	0	0	0	0	0	0	0	0	0	0	0	0
29....	0	0	0	0	....	0	0	0	0	0	0	0
30....	0	0	0	0	....	0	0	0	0	0	0	0
31....	0	....	0	0	....	0	....	0	....	0	0	....
Total	0	20	15	0	0	41	61	37	0	45	11	0
Mean.	0	0.7	0.5	0	0	1.3	2.0	1.2	0	1.5	0.4	0
Max..	0	3	8	0	0	12	10	26	0	34	11	0
Min..	0	0	0	0	0	0	0	0	0	0	0	0
Acre-ft.	0	42	31	0	0	80	119	74	0	92	25	0

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Holly Drain at State Line Near Holly for Year Ending Sept. 30, 1933.
Drainage Area, . . . Square Miles. Altitude, 3,385 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	28	31	21	25	21	23	28	49	33	22	24	5
2....	30	31	22	24	21	24	26	42	27	22	19	4
3....	29	37	42	21	21	23	33	42	26	22	19	3
4....	31	35	45	20	21	23	29	62	25	23	26	4
5....	31	33	47	20	21	24	30	186	25	27	37	3
6....	33	32	48	21	20	28	35	38	29	41	38	3
7....	32	25	46	21	20	35	31	39	26	29	38	3
8....	32	18	24	20	19	31	31	44	26	33	27	3
9....	32	18	23	20	20	43	27	56	31	23	25	3
10....	33	18	21	20	20	56	23	56	30	24	98	3
11....	26	18	20	19	19	52	23	58	29	48	35	3
12....	25	18	21	19	19	52	27	46	28	51	50	3
13....	26	21	21	19	19	44	29	41	27	43	33	3
14....	27	32	21	19	21	35	33	35	36	27	23	4
15....	29	32	21	19	21	34	26	27	54	29	23	8
16....	28	33	21	19	47	35	33	29	32	42	23	9
17....	28	34	20	19	25	36	26	27	27	42	22	11
18....	27	32	20	19	36	40	27	24	23	50	22	10
19....	29	22	20	19	35	51	23	24	23	60	22	9
20....	29	18	20	19	25	53	26	23	29	61	22	8
21....	30	21	20	19	32	44	29	24	39	62	21	6
22....	30	24	20	19	37	34	35	24	31	39	69	3
23....	27	25	20	19	31	46	27	24	25	27	42	2
24....	27	19	26	20	28	46	27	23	26	21	235	2
25....	28	18	35	19	25	49	30	24	32	20	150	2
26....	27	22	45	19	23	40	40	35	27	27	933	2
27....	22	28	42	19	25	36	46	25	34	37	500	2
28....	19	34	40	20	23	38	50	27	31	35	300	2
29....	19	29	34	20	....	35	40	26	22	33	200	2
30....	18	28	23	20	....	33	40	26	22	36	120	2
31....	23	....	25	21	....	28	....	26	....	35	75	....
Total	855	786	874	617	695	1171	930	1233	875	1091	3271	141
Mean..	27.6	26.2	28.2	19.9	24.8	37.8	31.0	39.8	29.2	35.2	106	47
Max...	33	37	48	25	47	56	50	186	54	62	933	11
Min...	18	18	20	19	19	23	23	23	22	20	19	2
Acre-ft.	1700	1560	1730	1220	1380	2320	1840	2450	1740	2160	6520	281

Discharge of Holly Drain at State Line Near Holly for Year Ending Sept. 30, 1934.
Drainage Area, . . . Square Miles. Altitude, 3,385 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	26	31	30	33	27	48	29	35	20	27	21	1
2....	26	30	29	34	27	48	27	78	21	20	20	1
3....	25	30	28	35	26	29	27	36	22	21	20	1
4....	24	29	30	38	26	23	23	32	20	27	19	1
5....	23	29	30	44	27	21	23	29	21	31	18	1
6....	23	29	33	30	28	20	21	26	21	22	17	1
7....	23	28	30	24	27	20	22	27	22	21	17	1
8....	24	28	28	22	28	23	28	27	20	75	16	1
9....	25	28	28	22	23	30	24	26	20	24	16	1
10....	26	28	27	22	21	29	23	25	21	20	15	1
11....	29	29	29	22	23	46	23	26	19	19	15	1
12....	31	29	29	22	23	47	24	25	20	18	15	1
13....	31	30	28	24	24	50	22	25	20	18	15	1
14....	31	30	28	26	24	59	22	27	18	19	15	1
15....	31	30	38	28	24	63	23	27	24	19	14	1
16....	30	29	41	34	23	58	63	24	31	18	14	1
17....	28	29	40	34	26	36	26	21	22	17	14	1
18....	31	29	34	33	30	30	22	25	20	17	13	1
19....	31	29	33	33	27	29	23	20	21	17	13	1
20....	31	28	32	32	36	35	24	19	21	17	12	1
21....	30	30	30	32	30	62	25	20	25	17	15	1
22....	30	31	28	32	24	56	23	22	19	17	14	1
23....	30	31	26	31	23	53	24	20	20	17	14	1
24....	30	31	25	31	22	58	26	20	19	17	14	1
25....	30	34	24	31	20	54	26	25	22	17	15	1
26....	30	30	23	31	21	55	24	24	21	17	14	1
27....	30	29	24	31	30	51	24	20	20	22	14	1
28....	30	28	26	29	33	51	24	19	20	25	15	1
29....	30	28	28	28	....	46	24	21	20	24	15	1
30....	30	28	30	32	....	42	25	21	22	21	14	1
31....	31	....	31	29	....	40	....	20	....	22	13	1
Total	880	882	920	929	723	1312	764	812	632	683	476	51
Mean..	28.4	29.4	29.7	30.0	25.8	42.3	25.5	26.2	21.1	22.0	15.4	18
Max...	31	34	41	44	36	63	63	78	31	75	21	1
Min...	23	28	23	22	20	20	21	19	18	17	12	1
Acre-ft.	1750	1750	1830	1840	1430	2600	1520	1610	1260	1350	947	101

Unless otherwise noted, all discharges are in cubic feet per second.

RIO GRANDE RIVER DRAINAGE

Cooperation—All stations maintained in cooperation with the United States Geological Survey.

†In Cooperation with Farmers Union Reservoir Co.

*In Cooperation with Rio Grande Water Users Association.

‡In Cooperation with Del Norte Irrigation District.

§In Cooperation with Terrace Irrigation District.

‡In Cooperation with Trinchera Irrigation District.

¶In Cooperation with Costilla Estate Devel. Co. and San Luis Mill.

†RIO GRANDE RIVER AT THIRTY MILE BRIDGE NEAR CREEDE

Location—In Sec. 13, T. 40 N., R. 4 W., about thirty miles southwest of Creede at Rio Grande Reservoir and above mouth of Squaw Creek.

Records Available—June 18, 1909, to September 30, 1923; May 16, 1925, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1909-34): 7,500 second-feet June 28, 1927 (gage height, 7.03 feet).

RIO GRANDE RIVER AT WASON BELOW CREEDE

Location—In Sec. 8, T. 41 N., R. 1 E., three miles southeast of Creede.

Records Available—April 24, 1907, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1907-34): 9,750 second-feet June 28, 1927 (gage height, 7.76 feet).

RIO GRANDE RIVER NEAR DEL NORTE

Location—In Sec. 30, T. 40 N., R. 5 E., six miles west of Del Norte at State Bridge. From October 11, 1889, to November 30, 1906, a station was maintained four miles below the present station. Records are comparable.

Records Available—October 11, 1889, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1889-1934): 15,000 second-feet June 29, 1927 (gage height, 6.40 feet).

*RIO GRANDE RIVER NEAR MONTE VISTA

Location—In Sec. 24, T. 39 N., R. 7 E., N. M. P. M., where Gunbarrel highway crosses river two miles north of town.

Records Available—May 1, 1926, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1926-34): 18,500 second-feet June 30, 1927 (gage height, 7.85 feet).

RIO GRANDE RIVER AT ALAMOSA

Location—In Sec. 3, T. 37 N., R. 10 E., at State Street bridge in Alamosa.

Records Available—May 15, 1912, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1912-34): 14,000 second-feet July 1, 1927 (gage height, 8.37 feet).

RIO GRANDE RIVER NEAR LOBATOS

Location—In Sec. 22, T. 33 N., R. 11 E., six miles north of the state line at highway bridge and ten miles east of Lobatos.

Records Available—June 28, 1899, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1899-1934): 13,100 second-feet June 8, 1905.

‡NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR

Location—In Sec. 22, T. 42 N., R. 3 W., just below Continental Reservoir and fifteen miles west of Creede.

Records Available—May 1, 1929, to September 30, 1934.

Gage—Automatic recording gage on a ten-foot Parshall flume.

Accuracy—Records excellent.

Maximum Discharge (1929-34): 246 second-feet June 2, 1933 (gage height, 3.14 feet).

ALAMOSA RIVER AT JASPER

Location—Three-fourths mile above Jasper, on log bridge, short distance off road to Stunner and in Sec. 30, T. 37 N., R. 5 E.

Records Available—October 12, 1931, to July 1, 1933.

Gage—Staff gage.

Accuracy—Records considered good.

§ALAMOSA RIVER BELOW TERRACE RESERVOIR

Location—One-half mile below Terrace dam in Sec. 23, T. 36 N., R. 6 E. and eleven miles northwest of Capulin.

Records Available—April 18, 1909, to November 30, 1912; April 1, 1915, to October 31, 1915; February 1, 1917, to October 31, 1920; April 1, 1922, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1909-12, 1915, 1917-20, 1922-34): Maximum daily, 1,450 second-feet June 16, 17, 18, 1917.

LA JARA CREEK NEAR CAPULIN

Location—In Sec. 21, T. 34 N., R. 7 E., eleven miles south of Capulin. Station prior to 1924 was located two miles south of this point.

Records Available—April, 1916, to November 30, 1917; April 1, 1919, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

TRINCHERA CREEK ABOVE TURNER'S RANCH NEAR
FORT GARLAND

Location—In Sec. 2, T. 31 S., R. 71 W., just above Turner's ranch and seven miles southeast of Fort Garland.

Records Available—April 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1923-34): 318 second-feet May 23, 1926 (gage height, 2.54 feet).

#TRINCHERA CREEK ABOVE MOUNTAIN HOME RESER-
VOIR NEAR FORT GARLAND

Location—In Sec. 31, T. 30 S., R. 71 W., just above Mountain Home Reservoir and five miles southeast of Fort Garland.

Records Available—May 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

#TRINCHERA CREEK BELOW THE SMITH RESERVOIR
NEAR BLANCA

Location—In Sec. 5, T. 31 S., R. 73 W., 6 P. M., five miles southwest of Blanca.

Records Available—October 1, 1929, to September 30, 1934.

Accuracy—Records considered good.

Gage—Bristol automatic recording gage.

#SANGRE DE CRISTO CREEK NEAR FORT GARLAND

Location—In Sec. 23, T. 30 S., R. 72 W., one and one-half miles east of Fort Garland on Turner Ranch road.

Records Available—March 15 to October 9, 1916; May 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1916, 1923-34): 377 second-feet May 14, 1924 (gage height, 4.20 feet).

**#SANGRE DE CRISTO CREEK ABOVE SMITH RESERVOIR
NEAR BLANCA**

Location—In Sec. 35, T. 30 S., R. 73 W., on County road 200 feet above bridge and two miles south of Blanca, and about three-fourths mile above high water line of reservoir.

Records Available—April 24, 1929, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum Discharge (1929-34): 191 second-feet May 20, 1932 (gage height, 3.60 feet).

UTE CREEK NEAR FORT GARLAND

Location—In Sec. 2, T. 30 S., R. 72 W., about two and one-half miles north of Fort Garland.

Records Available—March 16 to October 8, 1916; May 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1916, 1923-34): 313 second-feet July 22, 1930 (gage height, 2.38 feet).

CONEJOS RIVER NEAR MOGOTE

Location—In Sec. 34, T. 33 N., R. 7 E., twelve miles west of Antonito at Broyles bridge and two and one-half miles northwest of Mogote.

Records Available—September 1, 1899, to March 31, 1900, and April 17, 1903, to October 31, 1905, at a point one mile below present station. March 21, 1907, to October 5, 1911, three miles above present station. January 1, 1912, to September 30, 1934, at present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1899-1900, 1903-34): 6,000 second-feet (estimated) October 5, 1911.

CONEJOS RIVER AT MOUTH NEAR LA SAUSES

Location—In Sec. 2, T. 35 N., R. 11 E., about one-half mile above mouth and two miles north of La Sauses.

Records Available—March 29, 1921, to September 30, 1934.

Gage—Two automatic recording gages on two channels.

Accuracy—Records considered good.

Maximum Discharge (1921-34): 3,650 second-feet May 24, 1932.

SAN ANTONIO RIVER NEAR ORTIZ

Location—In Sec. 24, T. 32 N., R. 8 E., N. M. P. M., just across the state line from Ortiz, Colorado, and 600 feet above mouth of Los Pinos Creek.

Records Available—January 1 to October 31, 1915; May 1, 1919, to October 31, 1920; October 1, 1924, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1915, 1919-20, 1924-34): 900 second-feet May 6, 1926 (gage height, 3.00 feet).

SAN ANTONIO RIVER AT MOUTH NEAR MANASSA

Location—In Sec. 21, T. 34 N., R. 10 E., two and one-half miles east of Manassa on highway bridge and one mile above mouth.

Records Available—April 1, 1923, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1923-34): 1,890 second-feet May 5, 1924 (gage height, 5.42 feet).

LOS PINOS CREEK NEAR ORTIZ

Location—In Sec. 27, T. 32 N., R. 8 E., N. M. P. M., two and one-half miles above Ortiz.

Records Available—January 1, 1914, to November 30, 1920; October 1, 1924, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1914-20, 1924-34): 2,300 second-feet May 21, 1920 (gage height, 6.10 feet).

CULEBRA RIVER NEAR SAN LUIS

Location—In Sec. 35, T. 3 N., R. 72 W., Beaubien and Miranda Grant Survey, one mile above concrete bridge in San Luis.

Records Available—May 1, 1909, to September 2, 1919; April 1, 1927, to September 30, 1934; April 21, 1924, to September 30, 1926, station was maintained near Chama in Sec. 2, T. 2 N., R. 71 W. Twelve-foot—Venturi Flume since May 1, 1931.

Gage—Automatic recording gage.

Accuracy—Records excellent.

Maximum Discharge (1909-19, 1927-34): Maximum daily discharge, 470 second-feet June 26, 1915.

LA GARITA CREEK NEAR LA GARITA

Location—In Sec. 10, T. 41 N., R. 6 E., three and one-half miles southwest of La Garita Post Office at Curby Ranch.

Records Available—April 1, 1919, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

CARNERO CREEK NEAR LA GARITA

Location—In Sec. 26, T. 42 N., R. 6 E., three miles northwest of La Garita at O'Dell Ranch.

Records Available—April 1, 1919, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

SAGUACHE CREEK NEAR SAGUACHE

Location—In Sec. 14, T. 45 N., R. 6 E., at Ward's ranch, ten miles west of Saguache.

Records Available—August 7, 1910, to September 23, 1912; June 1, 1914, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1910-12, 1914-34): 746 second-feet June 15, 1921 (gage height, 3.45 feet, former datum).

Discharge of Rio Grande River at Thirty Mile Bridge for Year Ending Sept. 30, 1933.
Drainage Area, 163 Square Miles. Altitude, 9,380 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	60	....	....	....	....	....	12	277	463	613	326	55
2....	60	....	....	....	....	....	96	257	376	655	323	49
3....	73	....	....	....	....	....	84	228	699	626	323	47
4....	82	....	....	....	....	....	118	197	1030	613	316	44
5....	79	....	....	....	....	....	120	187	1040	655	359	40
6....	68	....	....	....	....	....	118	174	966	684	429	38
7....	58	....	....	....	....	....	118	161	677	769	530	38
8....	53	....	....	....	....	....	110	148	410	761	402	43
9....	43	....	....	....	....	....	76	132	606	722	137	92
10....	44	....	....	....	....	....	79	132	776	633	112	99
11....	47	....	....	....	....	....	112	128	1000	566	103	145
12....	47	....	....	....	....	....	161	137	1260	518	90	134
13....	46	....	....	....	....	....	89	165	1320	606	84	112
14....	58	....	....	....	....	....	23	170	1320	560	82	148
15....	65	....	....	....	....	....	56	211	1190	453	73	122
16....	270	....	....	....	....	....	190	241	1070	381	66	94
17....	260	....	....	....	....	....	208	277	769	397	66	87
18....	291	....	....	....	....	....	214	376	677	530	71	99
19....	368	....	....	....	....	....	238	524	714	536	130	101
20....	389	....	....	....	....	....	263	633	518	402	96	86
21....	402	....	....	....	....	....	70	834	480	326	92	94
22....	389	....	....	....	....	....	20	586	496	372	87	110
23....	345	....	....	....	....	....	18	250	496	368	90	87
24....	163	....	....	....	....	....	16	217	542	381	81	79
25....	32	....	....	....	....	....	17	234	566	410	71	74
26....	48	....	....	....	....	....	47	548	542	330	65	70
27....	46	....	....	....	....	....	174	1070	507	294	73	63
28....	48	....	....	....	....	....	197	1010	554	298	76	62
29....	42	....	....	....	....	....	228	903	692	385	71	59
30....	42	....	....	....	....	....	323	761	670	397	56	56
31....	4	....	....	....	....	....	....	406	....	349	56	....
Total	4034	....	....	....	....	....	3595	11574	22426	15590	4936	2427
Mean.	130	4	4	4	4	4	120	373	748	503	159	80.9
Max...	402	....	....	....	....	....	323	1070	1320	769	530	148
Min...	4	....	....	....	....	....	12	128	376	294	56	38
Acre-ft.	7990	238	246	246	222	246	7140	22900	44500	30900	9780	4810

Discharge of Rio Grande River at Thirty Mile Bridge for Year Ending Sept. 30, 1934.
Drainage Area, 163 Square Miles. Altitude, 9,380 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	59	60	....	....	....	....	74	626	326	73	36	68
2....	73	49	....	....	....	....	76	420	238	60	36	76
3....	70	47	....	....	....	....	71	305	238	60	36	76
4....	89	35	....	....	....	....	53	270	234	62	37	60
5....	105	47	....	....	....	....	41	267	203	60	37	60
6....	143	66	....	....	....	....	35	294	217	60	36	60
7....	145	52	....	....	....	....	31	507	182	44	36	80
8....	113	....	....	....	....	....	25	809	161	37	53	80
9....	110	....	....	....	....	....	28	722	161	55	66	80
10....	99	....	....	....	....	....	73	684	159	79	66	100
11....	96	....	....	....	....	....	143	714	139	89	56	110
12....	103	....	....	....	....	....	192	714	143	92	60	110
13....	99	....	....	....	....	....	238	714	143	73	59	128
14....	94	....	....	....	....	....	284	707	126	53	60	108
15....	87	....	....	....	....	....	254	469	108	38	70	97
16....	79	....	....	....	....	....	228	339	110	36	71	97
17....	76	....	....	....	....	....	214	393	112	42	73	97
18....	76	....	....	....	....	....	214	444	96	43	86	99
19....	71	....	....	....	....	....	214	485	89	38	92	99
20....	65	....	....	....	....	....	267	579	105	36	137	99
21....	54	....	....	....	....	10	410	560	108	36	99	106
22....	52	....	....	....	....	28	496	434	79	36	99	114
23....	56	....	....	....	....	42	633	429	89	48	74	156
24....	56	....	....	....	....	41	745	548	90	71	71	338
25....	60	....	....	....	....	41	817	566	106	63	68	424
26....	52	....	....	....	....	43	826	548	103	59	68	228
27....	55	....	....	....	....	47	714	566	94	68	68	179
28....	53	....	....	....	....	49	606	566	68	53	60	179
29....	50	....	....	....	....	52	662	530	63	42	60	145
30....	49	....	....	....	....	46	730	424	73	37	60	134
31....	48	....	....	....	....	70	....	402	....	36	60	....
Total	2447	....	....	....	....	....	9394	16085	4163	1679	1990	3787
Mean.	78.9	25	4	3	3	18	313	519	139	54.2	64.2	126
Max...	148	....	....	....	....	....	826	809	326	92	137	424
Min...	48	....	....	....	....	....	25	267	63	36	36	60
Acre-ft.	4850	1490	246	184	167	1110	18600	31900	8270	3330	3950	7500

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River at Wason for Year Ending Sept. 30, 1933.
Drainage Area, 700 Square Miles. Altitude, 8,591 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	236	154	....	....	....	....	204	453	2170	962	766	229
2....	233	146	....	....	....	....	260	471	2190	1010	713	233
3....	215	160	....	....	....	....	326	436	1960	1100	683	218
4....	211	133	....	....	....	....	430	408	2260	1060	647	204
5....	198	128	....	....	....	....	280	408	2220	1060	683	192
6....	189	128	....	....	....	....	272	403	2170	1120	791	183
7....	195	130	....	....	....	....	289	341	1740	1390	1020	174
8....	192	....	....	....	....	....	240	341	1250	1420	971	171
9....	189	....	....	....	....	....	268	312	1580	1300	632	240
10....	189	....	....	....	....	....	215	276	2090	1190	471	264
11....	198	....	....	....	....	....	229	285	2240	1140	414	392
12....	198	....	....	....	....	....	272	256	2410	1090	381	471
13....	198	....	....	78	....	....	331	272	2340	1040	341	387
14....	198	....	....	....	....	....	180	280	2270	981	326	538
15....	192	....	....	....	....	....	171	317	2380	868	312	507
16....	201	....	....	....	....	....	294	414	2120	783	366	430
17....	398	....	....	....	....	....	376	544	1880	791	356	376
18....	419	....	....	....	....	....	408	774	1680	942	356	371
19....	403	....	....	....	....	....	419	1150	1570	991	488	430
20....	459	....	....	....	....	91	442	1550	1330	868	403	346
21....	519	....	....	....	....	....	356	1840	1190	758	356	326
22....	550	....	....	....	74	....	180	1850	1170	736	346	361
23....	538	....	....	....	....	....	166	981	1160	728	351	326
24....	525	....	....	....	....	....	166	816	1170	683	321	294
25....	488	....	....	....	....	....	166	896	1120	713	308	272
26....	256	....	....	....	....	....	163	1230	1110	713	298	268
27....	180	....	....	....	....	....	240	2130	1020	598	308	248
28....	171	....	87	....	....	....	371	2230	981	577	321	233
29....	174	....	....	....	....	....	361	2310	625	611	272	229
30....	168	70	....	....	....	....	447	2340	647	668	248	222
31....	160	....	....	....	....	....	....	2230	....	720	236	....
Total	8640	....	....	....	....	....	8522	28544	50043	28611	14485	9135
Mean..	279	95	80	80	76	97	284	921	1670	923	467	304
Max..	550	....	....	....	....	....	447	2340	2410	1420	1020	538
Min..	166	....	....	....	....	....	163	256	625	577	236	171
Acre-ft.	17200	5650	4920	4920	4220	5960	16900	56600	99400	56800	28700	18100

Discharge of Rio Grande River at Wason for Year Ending Sept. 30, 1934.
Drainage Area, 700 Square Miles. Altitude, 8,591 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	218	171	....	....	....	....	215	1500	808	218	166	218
2....	233	171	....	....	....	....	218	1050	647	211	166	198
3....	256	160	....	....	74	....	215	833	604	204	163	186
4....	308	171	....	....	....	....	177	705	577	189	177	174
5....	336	152	....	104	....	....	171	690	544	233	174	168
6....	376	149	....	....	....	....	177	604	507	233	166	171
7....	366	157	....	....	....	....	168	1200	500	208	171	174
8....	326	163	....	....	....	....	186	1700	447	198	183	174
9....	289	143	....	....	....	....	186	1800	442	204	186	211
10....	280	130	....	....	....	....	256	1800	425	294	183	192
11....	289	130	....	....	....	....	419	1810	398	215	189	183
12....	270	130	....	....	....	....	500	1750	381	233	198	163
13....	260	133	....	....	....	....	584	1610	381	226	201	160
14....	250	130	....	....	....	....	604	1490	366	201	211	166
15....	245	130	....	....	....	....	598	1350	331	186	222	154
16....	240	130	....	....	....	....	598	1100	308	183	229	146
17....	233	130	....	....	....	....	604	1060	268	195	244	146
18....	230	125	103	....	....	....	584	1060	260	195	252	146
19....	230	123	....	....	76	....	668	1080	256	189	260	146
20....	230	120	....	....	....	....	751	1100	252	180	272	146
21....	220	118	....	....	....	....	1020	1140	268	177	346	152
22....	210	115	....	....	....	....	1250	942	252	192	264	160
23....	200	115	....	....	....	....	1380	850	226	226	276	280
24....	190	115	....	....	....	....	1660	933	244	244	248	690
25....	190	115	....	....	....	....	1780	981	289	233	252	519
26....	180	115	....	....	....	....	1780	1010	280	226	229	476
27....	180	115	....	....	....	....	1640	1040	256	218	240	326
28....	180	115	....	....	....	....	1440	1050	236	204	240	280
29....	174	115	....	....	....	....	1400	981	211	177	244	260
30....	166	115	....	....	....	....	1450	1010	208	168	222	260
31....	166	....	....	....	....	....	....	896	....	166	211	....
Total	7521	4001	....	....	....	....	22679	36125	11172	6426	6785	6825
Mean..	243	133	110	90	75	130	756	1170	372	207	219	228
Max..	376	171	....	....	....	....	1780	1810	808	294	346	690
Min..	166	115	....	....	....	....	168	604	208	166	163	146
Acre-ft.	14900	7910	6760	5530	4170	7990	45000	71900	22100	12700	13500	13600

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River Near Del Norte for Year Ending Sept. 30, 1933.
Drainage Area, 1,320 Square Miles. Altitude, 7,868 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	339	286	135	....	....	....	400	432	3650	1620	934	343
2....	334	291	140	....	....	....	400	462	4030	1580	916	324
3....	334	291	....	....	....	....	462	462	3150	1640	879	319
4....	370	268	....	....	....	....	638	495	3550	1660	851	292
5....	370	234	....	....	....	....	462	528	3630	1670	934	292
6....	350	226	....	....	....	....	402	528	3510	1730	982	268
7....	334	230	....	....	....	....	402	495	3110	1960	1200	250
8....	312	210	....	....	....	....	402	495	2360	1990	1230	232
9....	328	192	....	....	....	....	375	495	2570	1870	1010	250
10....	306	214	....	....	....	....	348	495	3430	1730	825	386
11....	300	200	....	....	....	....	300	495	3650	1580	668	386
12....	300	190	....	....	....	....	324	495	3850	1540	593	653
13....	295	180	165	....	....	....	375	495	3650	1420	535	528
14....	290	170	....	....	....	....	375	495	3510	1410	482	692
15....	290	160	....	....	....	....	300	495	3650	1260	456	790
16....	290	160	....	....	....	....	324	564	3270	1150	456	646
17....	400	160	....	....	....	....	432	756	3080	1130	450	550
18....	545	150	....	....	....	....	495	1030	2870	1160	450	557
19....	552	150	....	....	....	....	564	1460	2680	1220	586	732
20....	594	150	....	....	....	215	564	2080	2500	1190	615	600
21....	735	150	....	....	....	....	495	2470	2280	1090	488	564
22....	811	140	....	....	....	....	462	2560	2180	992	488	608
23....	764	140	....	....	....	....	348	1790	2100	982	456	557
24....	754	140	....	....	....	....	300	1520	2060	888	438	482
25....	764	140	....	....	....	....	260	1590	2060	888	414	438
26....	586	140	....	....	....	....	280	1720	1990	934	408	420
27....	344	140	....	....	....	....	260	2560	1830	782	397	391
28....	339	135	....	....	151	....	348	3000	1730	716	482	380
29....	328	135	173	....	....	....	402	3250	1680	708	444	359
30....	322	132	....	....	....	....	402	3470	1730	773	414	353
31....	300	....	....	....	....	....	....	3690	....	879	353	....
Total	13280	5504	....	....	....	....	11901	40872	85340	40142	19834	13642
Mean..	428	183	155	166	155	235	397	1320	2840	1290	640	455
Max....	811	291	....	....	....	....	638	3690	4030	1990	1230	790
Min....	290	....	....	....	....	....	260	432	1680	708	353	232
Acre-ft.	26300	10900	9530	10200	8610	14400	23600	81200	169000	79300	39400	27100

Discharge of Rio Grande River Near Del Norte for Year Ending Sept. 30, 1934.
Drainage Area, 1,320 Square Miles. Altitude, 7,868 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	348	324	....	....	....	167	355	2210	1140	239	200	260
2....	370	324	....	....	....	171	355	1800	938	236	200	250
3....	397	296	....	....	....	190	355	1450	836	236	198	228
4....	462	296	....	....	....	182	292	1380	792	236	202	215
5....	521	292	....	258	....	190	292	1360	724	250	208	205
6....	608	288	....	....	....	195	292	1300	643	272	192	220
7....	578	288	....	....	....	195	288	1580	651	264	195	225
8....	535	276	....	....	....	185	316	2100	586	256	210	232
9....	482	249	....	....	213	182	385	2520	546	239	205	242
10....	450	249	....	....	....	200	482	2590	526	250	228	242
11....	432	249	....	....	....	202	659	2610	539	260	225	225
12....	444	249	....	....	....	215	872	2500	500	272	215	215
13....	438	256	....	....	....	220	985	2350	476	276	218	205
14....	444	243	....	....	....	236	966	2130	452	253	225	205
15....	438	235	200	....	....	239	1020	1940	405	236	236	208
16....	402	225	....	....	....	250	1070	1640	385	220	256	195
17....	380	225	....	....	....	268	1020	1570	415	212	264	195
18....	364	225	....	....	....	236	890	1530	375	198	280	195
19....	353	222	....	....	206	232	956	1540	320	192	292	195
20....	348	216	....	....	....	250	1120	1480	276	192	336	198
21....	338	225	....	....	....	256	1460	1530	276	192	435	208
22....	334	225	....	....	....	260	1760	1400	284	205	405	208
23....	329	222	....	....	180	284	1880	1250	264	239	345	253
24....	319	219	....	....	178	300	2300	1220	264	264	328	1100
25....	314	216	....	....	178	312	2500	1310	324	272	312	715
26....	310	216	....	....	180	296	2490	1320	304	268	296	628
27....	296	213	....	....	175	304	2370	1330	284	260	272	470
28....	296	216	....	....	173	312	2160	1350	272	264	260	390
29....	288	215	....	....	....	370	2040	1250	228	239	264	375
30....	280	215	....	....	....	340	2070	1350	239	215	253	332
31....	280	....	....	....	....	360	....	1300	....	212	242	....
Total	12178	7409	....	....	....	7599	34000	52190	14264	7419	7997	9034
Mean..	393	247	210	215	200	245	1130	1680	475	239	258	301
Max....	608	....	....	....	....	370	2500	2610	1140	276	435	1100
Min....	280	....	....	....	....	167	288	1220	228	192	192	195
Acre-ft.	24200	14700	12900	13200	11100	15100	67200	103000	28300	14700	15900	17900

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River Near Monte Vista for Year Ending Sept. 30, 1933.
Drainage Area, 1,740 Square Miles. Altitude, 7,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	33	225	189	.....	.....	.....	32	28	778	461	128	20
2....	33	225	.....	.....	.....	.....	28	16	1240	401	165	20
3....	33	225	.....	.....	.....	.....	52	16	592	401	65	20
4....	16	206	.....	.....	.....	.....	146	42	663	372	94	20
5....	16	189	.....	.....	.....	.....	146	78	864	345	146	20
6....	16	189	.....	.....	.....	.....	94	65	909	401	128	20
7....	16	189	.....	.....	.....	.....	110	94	954	558	110	16
8....	24	206	.....	.....	.....	.....	32	78	592	558	224	16
9....	33	206	.....	.....	.....	.....	24	94	821	525	246	16
10....	42	206	.....	.....	.....	.....	20	65	1190	492	65	16
11....	42	206	.....	.....	.....	.....	16	65	1000	401	52	16
12....	42	206	.....	.....	.....	.....	16	78	1140	401	32	20
13....	42	206	.....	.....	.....	.....	24	65	1140	345	28	24
14....	42	206	.....	.....	.....	.....	224	94	1140	293	24	78
15....	42	206	.....	.....	.....	.....	146	78	1340	224	24	318
16....	62	206	.....	.....	.....	.....	32	78	1000	110	20	268
17....	62	206	.....	.....	.....	.....	28	78	864	78	28	165
18....	33	206	.....	.....	.....	.....	24	128	739	52	24	94
19....	24	206	.....	.....	.....	.....	20	318	954	32	32	184
20....	8	206	.....	.....	.....	.....	20	739	663	32	110	204
21....	8	206	.....	.....	.....	.....	20	1100	492	42	28	128
22....	24	206	.....	.....	.....	204	20	954	372	28	28	110
23....	62	189	.....	.....	.....	204	20	461	293	32	52	128
24....	62	189	.....	.....	.....	165	20	430	268	32	52	78
25....	244	189	.....	.....	.....	165	16	626	268	24	42	52
26....	354	172	.....	.....	.....	146	16	739	246	65	32	52
27....	206	189	.....	.....	.....	146	16	864	293	65	65	32
28....	140	189	.....	.....	.....	146	16	1050	401	52	78	28
29....	125	206	.....	.....	.....	146	16	821	461	32	32	20
30....	125	189	.....	.....	.....	128	16	821	492	65	28	20
31....	225	.....	.....	.....	.....	110	.....	909	.....	94	24	.....
Total	2236	6050	.....	.....	.....	.....	1410	11072	22169	7013	2206	2203
Mean..	72.1	202	.....	.....	.....	.....	47.0	357	739	226	71.2	73.4
Max..	354	225	.....	.....	.....	.....	224	1100	1340	558	246	318
Min...	8	172	.....	.....	.....	.....	16	16	246	24	20	16
Acre-ft.	4430	12000	.....	.....	.....	.....	2800	22000	44000	13900	4380	4370

Discharge of Rio Grande River Near Monte Vista for Year Ending Sept. 30, 1934.
Drainage Area, 1,740 Square Miles. Altitude, 7,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	110	.....	.....	.....	140	28	748	330	83	83	44
2....	20	165	.....	.....	.....	137	28	642	215	83	80	53
3....	24	184	.....	.....	.....	135	27	649	130	76	72	47
4....	20	165	.....	.....	.....	130	27	535	110	76	62	42
5....	32	165	.....	.....	.....	120	37	479	95	85	64	38
6....	146	165	.....	.....	.....	100	32	485	88	72	72	38
7....	165	204	.....	.....	.....	80	28	629	64	42	62	35
8....	165	204	.....	.....	.....	60	29	791	66	42	55	40
9....	146	224	.....	.....	.....	60	32	834	80	40	62	58
10....	78	224	.....	.....	.....	58	72	719	95	58	64	70
11....	65	224	.....	.....	.....	53	100	670	130	72	85	68
12....	52	204	.....	.....	.....	55	150	784	130	85	78	64
13....	52	204	.....	.....	.....	56	236	791	133	95	66	58
14....	52	184	.....	.....	.....	47	263	733	147	85	70	48
15....	52	165	.....	.....	.....	45	278	726	154	74	55	44
16....	52	146	.....	.....	.....	36	303	622	150	62	55	36
17....	65	165	.....	.....	.....	28	319	542	150	60	53	30
18....	52	184	.....	.....	.....	26	249	503	147	55	58	27
19....	52	165	.....	.....	.....	24	210	542	113	42	66	25
20....	52	165	.....	.....	.....	23	308	516	88	37	85	24
21....	32	165	.....	.....	.....	25	535	491	78	42	92	35
22....	32	146	.....	.....	.....	36	698	419	90	52	90	35
23....	28	146	.....	.....	140	31	615	335	90	58	47	35
24....	27	146	.....	.....	.....	32	677	249	100	66	36	254
25....	20	146	.....	.....	.....	32	726	278	119	100	28	210
26....	20	146	.....	.....	.....	29	581	319	130	97	25	78
27....	20	146	.....	.....	144	27	581	368	113	97	25	31
28....	16	146	.....	.....	.....	25	684	419	102	100	27	23
29....	16	146	.....	.....	.....	26	677	368	100	108	35	22
30....	16	146	.....	.....	.....	26	748	396	85	97	41	22
31....	20	.....	.....	.....	.....	27	.....	460	.....	92	38	.....
Total	1609	5095	.....	.....	.....	1729	9278	17042	3622	2233	1831	1634
Mean..	51.9	170	.....	.....	140	55.8	309	550	121	72.0	59.1	54.5
Max..	165	224	.....	.....	.....	140	748	834	330	108	92	254
Min...	16	110	.....	.....	.....	23	27	249	64	37	25	22
Acre-ft.	3190	10100	.....	.....	7780	3430	18400	33800	7200	4430	3630	3240

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River at Alamosa for Year Ending Sept. 30, 1933.
Drainage Area, 1,840 Square Miles. Altitude, 7,536 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	108	....	....	....	....	50	8	24	43	30	30
2....	10	120	....	....	....	....	36	8	13	43	36	24
3....	10	144	264	....	....	....	30	8	300	50	43	24
4....	10	132	....	....	....	....	24	8	182	43	43	24
5....	10	84	....	....	....	....	18	8	132	66	43	24
6....	10	84	....	....	....	....	8	8	58	66	43	24
7....	10	118	....	....	....	....	8	4	30	66	66	24
8....	10	95	....	....	....	....	8	4	24	66	66	24
9....	10	95	....	....	....	....	8	4	13	50	66	24
10....	10	84	....	....	....	....	8	4	13	43	58	18
11....	10	108	....	....	....	....	8	18	120	43	36	18
12....	10	154	....	....	....	....	8	18	58	36	30	18
13....	10	179	....	....	....	....	8	13	108	30	30	18
14....	10	207	....	....	....	....	8	13	86	30	24	18
15....	10	237	....	....	....	....	8	13	169	30	24	18
16....	10	222	....	....	....	....	8	13	380	30	24	30
17....	10	219	....	....	....	....	8	13	285	30	24	58
18....	10	219	....	....	....	....	8	13	210	30	24	30
19....	10	249	....	....	....	....	8	13	196	50	24	24
20....	10	249	264	....	....	....	8	13	132	66	24	18
21....	10	264	....	....	....	....	8	43	196	58	24	18
22....	10	270	....	....	....	182	8	196	210	50	24	18
23....	15	270	....	....	....	182	8	132	144	43	24	18
24....	28	270	....	....	....	169	8	43	108	43	24	18
25....	34	270	....	....	171	169	8	24	86	36	24	18
26....	106	265	....	....	....	132	8	50	66	36	24	18
27....	225	265	....	....	....	144	8	66	50	43	30	18
28....	120	265	....	....	....	120	8	108	36	36	36	18
29....	76	265	....	....	....	97	8	97	43	36	76	18
30....	58	265	....	....	....	76	8	43	43	36	66	18
31....	58	....	220	....	....	76	....	24	....	30	36	....
Total	940	5776	....	....	....	....	358	1030	3515	1358	1146	670
Mean.	30.3	193	245	200	175	165	11.9	33.2	117	43.8	37.0	22.3
Max..	225	270	....	....	....	....	50	196	380	66	76	58
Min...	10	84	....	....	....	....	8	4	13	30	24	18
Acre-ft.	1860	11500	15100	12300	9720	10100	708	2040	6960	2690	2280	1330

Discharge of Rio Grande River at Alamosa for Year Ending Sept. 30, 1934.
Drainage Area, 1,840 Square Miles. Altitude, 7,536 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	18	9	58	190	200	200	....	20	75	34	25	17
2....	18	9	157	190	204	170	....	20	70	39	25	17
3....	18	29	157	190	205	150	....	22	64	39	25	17
4....	18	58	160	180	205	150	....	22	59	39	25	17
5....	18	58	200	180	205	130	....	25	64	39	25	17
6....	18	58	200	180	210	130	....	26	64	34	25	17
7....	18	67	250	170	210	130	....	26	64	34	21	17
8....	23	109	250	171	220	100	....	27	59	34	21	17
9....	23	120	250	170	220	100	....	28	59	34	25	17
10....	23	132	250	170	220	100	....	28	54	30	25	17
11....	23	132	250	170	230	90	....	29	54	30	34	17
12....	23	132	250	170	230	90	....	30	54	30	39	17
13....	23	120	247	170	230	90	....	30	54	30	34	17
14....	23	120	245	165	240	90	....	30	54	25	39	17
15....	23	109	245	165	240	90	....	36	49	25	39	17
16....	23	87	240	165	240	60	....	36	49	25	39	17
17....	23	77	240	165	250	50	....	32	49	25	39	17
18....	23	58	240	165	250	40	....	24	49	25	34	17
19....	23	67	240	165	250	30	....	24	39	25	34	17
20....	18	58	240	165	256	25	....	25	44	25	39	17
21....	18	58	230	170	260	25	....	25	39	25	30	17
22....	23	58	230	170	260	25	....	25	39	25	25	14
23....	18	50	230	170	260	25	....	25	39	25	25	14
24....	2	50	230	170	270	25	....	49	39	25	25	14
25....	2	50	230	170	270	25	....	54	39	25	25	14
26....	2	50	210	170	270	20	....	64	39	25	25	14
27....	2	50	210	170	250	20	....	64	39	25	25	14
28....	2	42	210	180	240	20	....	59	39	25	21	14
29....	2	42	200	180	....	20	....	64	39	25	21	14
30....	5	42	200	190	....	20	....	70	34	25	17	14
31....	9	....	200	190	....	20	....	70	....	25	17	....
Total	505	2101	6749	5386	6595	2260	....	1109	1512	896	868	483
Mean.	16.3	70.0	218	174	236	72.9	20	35.8	50.4	28.9	28.0	16.1
Max..	23	132	....	....	....	....	....	70	75	39	39	17
Min...	2	9	....	....	....	....	....	....	34	25	17	14
Acre-ft.	1000	4170	13400	10700	13100	4480	1190	2200	3000	1780	1720	958

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Rio Grande River Near Lobatos for Year Ending Sept. 30, 1933.
Drainage Area, 7,700 Square Miles. Altitude, 7,440 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	113	232	386	290	....	260	304	186	1850	524	27	134
2....	110	270	404	285	....	270	287	173	1910	456	27	102
3....	104	306	404	280	....	270	277	168	2130	419	28	96
4....	107	312	404	280	....	270	247	177	1980	413	26	106
5....	107	322	398	277	....	300	223	186	1750	353	22	118
6....	101	306	442	....	....	350	223	195	1670	320	32	80
7....	101	306	398	....	....	400	237	173	1460	267	42	60
8....	104	306	300	....	....	500	232	186	1300	218	60	50
9....	104	295	320	....	....	600	218	168	1010	214	52	51
10....	104	290	350	....	....	650	182	173	970	214	48	58
11....	107	265	350	....	....	884	160	151	1110	204	42	70
12....	116	245	340	....	....	731	160	151	1250	209	42	83
13....	118	312	330	....	....	763	146	146	1300	173	36	80
14....	125	398	330	....	....	708	84	142	1310	142	34	130
15....	132	380	340	....	....	655	204	146	1110	114	34	100
16....	135	398	340	....	244	618	164	146	1000	99	36	110
17....	146	386	330	....	....	574	168	142	1120	92	34	110
18....	135	386	320	....	....	538	151	126	1170	83	65	122
19....	135	386	320	....	....	497	151	138	1080	65	68	120
20....	143	386	325	....	....	463	146	388	1070	55	68	101
21....	156	398	325	....	....	456	142	796	1280	48	45	110
22....	153	404	330	....	....	431	160	1160	1350	40	34	114
23....	160	398	327	....	....	413	168	1330	1280	36	33	120
24....	209	392	325	....	....	425	177	902	1200	33	32	118
25....	423	386	320	....	....	394	177	850	1150	30	32	114
26....	456	398	320	....	....	388	173	902	1070	30	38	102
27....	410	404	315	....	....	365	146	970	990	32	45	99
28....	404	398	310	....	....	353	151	1210	813	30	70	99
29....	334	398	305	....	....	348	177	1540	700	28	60	84
30....	265	398	300	....	....	304	177	1730	618	26	65	80
31....	232	....	295	....	....	314	....	1780	....	22	138	....
Total	5549	10461	10603	....	....	14492	5612	16611	38001	4989	1415	2942
Mean.	179	349	342	268	250	467	187	536	1270	161	45.6	98.7
Max..	456	404	....	....	....	....	304	1780	2130	524	138	131
Min...	101	232	....	....	....	....	84	126	618	22	22	54
Acre-ft.	11000	20800	21000	16500	13900	28700	11100	33000	75600	9900	2800	5840

Discharge of Rio Grande River Near Lobatos for Year Ending Sept. 30, 1934.
Drainage Area, 7,700 Square Miles. Altitude, 7,440 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	73	126	204	....	323	413	155	130	96	8	10	20
2....	73	118	214	....	....	406	160	130	83	8	8	11
3....	76	126	304	....	....	406	164	168	73	8	6	11
4....	80	126	214	373	....	394	160	146	80	11	6	11
5....	106	134	287	....	....	377	155	110	73	11	8	11
6....	110	186	359	....	....	365	151	99	62	9	7	11
7....	96	186	359	....	....	359	146	89	45	9	7	11
8....	102	191	395	....	....	331	146	92	36	9	7	11
9....	118	209	400	....	....	325	142	99	30	13	8	3
10....	126	223	390	....	....	309	138	114	32	14	8	3
11....	118	242	390	....	....	304	130	155	27	13	9	4
12....	122	242	370	....	....	304	126	195	26	12	10	5
13....	130	232	360	....	....	282	118	214	22	11	11	3
14....	134	232	370	....	....	277	138	173	20	11	13	3
15....	134	237	370	....	....	277	173	134	18	10	20	2
16....	134	237	375	....	488	262	164	122	16	9	22	1
17....	130	232	315	....	....	252	168	106	16	7	26	2
18....	130	218	300	....	....	237	164	96	14	7	22	2
19....	138	214	300	....	582	232	155	86	13	6	26	2
20....	142	209	300	....	490	227	142	73	11	6	52	2
21....	146	209	300	....	483	204	130	80	9	7	33	3
22....	142	218	300	....	497	200	118	86	9	6	38	3
23....	146	209	300	....	456	191	122	76	9	9	33	5
24....	151	209	315	....	456	182	122	76	11	27	30	4
25....	146	204	315	....	444	182	164	80	13	26	45	5
26....	138	200	350	....	431	182	173	60	9	18	32	5
27....	134	191	380	....	419	186	164	60	7	13	27	5
28....	126	182	375	....	419	182	164	60	9	11	28	5
29....	126	182	375	....	....	164	134	67	9	9	27	5
30....	122	182	375	....	....	160	134	92	9	9	24	5
31....	122	....	375	....	....	160	....	110	....	12	20	....
Total	3771	5906	10336	....	....	8332	4420	3378	887	339	623	97
Mean.	122	197	333	325	400	269	147	109	29.6	10.9	20.1	32.2
Max..	151	242	....	....	....	413	173	214	96	27	52	5
Min...	73	118	....	....	....	160	118	60	7	6	6	1
Acre-ft.	7500	11700	20500	20000	22200	16500	8750	6700	1760	670	1240	193

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of North Clear Creek Below Continental Res. for Year Ending Sept. 30, 1933.
Drainage Area, 49 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	....	....	....	....	....	8	54	226	17	53	46
2....	13	....	....	....	....	....	8	54	234	17	56	38
3....	13	....	....	....	....	....	8	58	180	21	52	34
4....	13	....	....	....	....	....	8	61	124	39	43	31
5....	13	....	....	....	....	....	8	61	105	42	36	28
6....	13	....	....	....	....	....	8	60	94	49	40	26
7....	13	....	....	....	....	....	8	56	79	71	47	31
8....	13	....	....	....	....	....	8	43	67	79	50	35
9....	13	....	....	....	....	....	8	34	64	80	34	22
0....	13	....	....	....	....	....	8	30	64	69	25	19
1....	13	....	....	....	....	....	8	29	64	47	24	26
2....	13	....	....	....	....	....	8	20	10	47	18	28
3....	13	....	....	....	....	....	8	14	10	53	15	28
4....	13	....	....	....	....	....	8	15	139	42	12	19
5....	13	....	....	....	....	....	14	15	158	37	18	13
6....	13	....	....	....	....	....	17	27	160	35	26	12
7....	12	....	....	....	....	....	16	61	108	35	26	10
8....	12	....	....	....	....	....	19	77	53	34	22	9
9....	12	....	....	....	....	....	22	116	72	34	20	9
0....	9	....	....	....	....	....	22	201	85	41	24	9
1....	8	....	....	....	....	....	21	205	73	38	13	10
2....	8	....	....	....	....	....	21	209	76	34	2	10
3....	8	....	....	....	....	....	21	156	83	29	2	9
4....	8	....	....	....	....	....	21	114	73	27	2	9
5....	8	....	....	....	....	....	20	104	46	30	2	9
6....	8	....	....	....	....	....	24	129	35	36	2	8
7....	8	....	....	....	....	....	28	218	26	41	2	6
8....	8	....	....	....	....	....	28	234	26	43	2	7
9....	8	....	....	....	....	....	28	234	24	41	2	9
0....	8	....	....	....	....	....	34	236	19	39	2	9
1....	8	....	....	....	....	....	....	222	....	45	22	....
Total	342	....	....	....	....	....	468	3147	2577	1292	694	559
Mean.	11.0	8	8	8	8	8	15.6	102	85.9	41.7	22.4	18.6
Max..	14	....	....	....	....	....	34	236	234	80	56	46
Min..	8	....	....	....	....	....	8	14	10	17	2	7
acre-ft.	676	476	492	492	444	492	928	6270	5110	2560	1380	1110

Discharge of North Clear Creek Below Continental Res. for Year Ending Sept. 30, 1934.
Drainage Area, 49 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	79	25	21	8	8
2....	8	64	24	21	8	8
3....	8	42	20	21	8	8
4....	8	29	20	50	15	8
5....	8	28	18	50	13	8
6....	8	53	18	50	15	8
7....	8	69	19	35	8	8
8....	8	71	20	11	5	8
9....	8	78	20	11	5	8
0....	8	99	11	11	5	8
1....	8	134	8	11	5	8
2....	8	117	9	11	5	8
3....	8	93	13	11	5	8
4....	8	84	14	8	5	8
5....	8	68	13	16	6	8
6....	51	49	14	19	6	8
7....	63	42	15	16	7	8
8....	121	42	15	14	8	8
9....	149	38	15	8	9	8
0....	154	37	28	7	9	8
1....	152	34	23	9	11	8
2....	149	24	19	10	14	8
3....	146	20	17	11	13	8
4....	145	22	18	13	13	8
5....	145	24	21	14	14	8
6....	144	25	22	14	17	8
7....	117	28	21	15	19	8
8....	84	29	22	10	18	8
9....	79	28	22	8	18	8
0....	78	27	22	8	11	8
1....	26	....	8	7	....
Total	1897	1603	546	522	310	240
Mean.	8	8	8	8	8	8	63.2	51.7	18.2	16.8	10.0	8.0
Max..	154	134	28	50	19	8
Min..	20	8	7	5	8
acre-ft.	492	476	492	492	444	492	3760	3180	1080	1030	615	476

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Alamosa River at Jasper for Year Ending Sept. 30, 1933.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Se
1....	17	7.4	13	12	11	8.4	23	32	910	234	....	..
2....	17	6.8	13	13	11	9.1	25	34	801	....	....	..
3....	17	12	12	12	11	10	30	35	792	....	....	..
4....	15	16	13	12	11	8.4	30	34	774	....	....	..
5....	11	16	11	12	10	9.4	23	35	756	....	....	..
6....	12	17	12	11	10	9.4	25	36	507	....	....	..
7....	12	16	7.8	11	10	9.4	24	35	470	....	....	..
8....	15	12	7.8	11	10	9.4	23	35	500	....	....	..
9....	17	15	10	11	10	10	26	29	570	....	....	..
10....	16	15	10	11	11	11	24	26	640	....	....	..
11....	17	7.8	10	11	11	10	24	26	605	....	....	..
12....	18	12	11	10	11	12	22	29	500	....	....	..
13....	17	13	11	10	11	10	22	22	440	....	....	..
14....	18	14	12	10	11	11	20	18	365	....	....	..
15....	16	13	12	9.1	11	11	24	21	365	....	....	..
16....	14	14	13	9.1	11	12	25	31	340	....	....	..
17....	14	14	12	10	11	11	26	62	331	....	....	..
18....	14	13	13	10	11	12	28	103	331	....	....	..
19....	11	13	13	10	11	11	31	151	322	....	....	..
20....	16	13	14	10	11	10	25	220	313	....	....	..
21....	14	14	13	10	11	10	20	241	295	....	....	..
22....	14	14	13	10	11	10	17	244	295	....	....	..
23....	13	13	14	10	11	12	13	216	287	....	....	..
24....	14	13	14	11	11	10	14	192	287	....	....	..
25....	14	13	13	10	10	10	17	206	271	....	....	..
26....	14	12	13	10	10	10	17	234	271	....	....	..
27....	14	12	14	10	10	12	23	336	252	....	....	..
28....	14	13	14	10	8.4	17	30	430	248	....	....	..
29....	12	12	13	10	....	19	32	494	234	....	....	..
30....	14	12	12	10	....	21	32	577	230	....	....	..
31....	7.4	....	12	11	....	18	....	819	....	....	....	..
Total	448.4	388.0	375.6	327.2	297.4	353.5	715	5003	13302	....	....	..
Mean.	14.5	12.9	12.1	10.6	10.6	11.4	23.8	161	443	....	....	..
Max..	18	17	14	13	11	21	32	819	910	....	....	..
Min..	7.4	6.8	7.8	9.1	8.4	8.4	13	18	230	....	....	..
Acre-ft.	892	768	744	652	589	701	1420	9900	26400	....	....	..

Discharge of Alamosa River Below Terrace Reservoir for Year Ending Sept. 30, 1933.
Drainage Area, 120 Square Miles. Altitude, 8,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Se
1....	46	....	....	....	....	....	14	35	790	250	178	..
2....	46	....	....	....	....	....	14	61	834	225	44	..
3....	46	....	....	....	....	....	14	61	834	225	44	..
4....	46	....	....	....	....	....	25	61	834	225	79	..
5....	46	....	....	....	....	....	25	61	812	225	97	..
6....	46	....	....	....	....	....	25	61	746	225	116	..
7....	46	....	....	....	....	....	35	61	637	238	167	..
8....	46	....	....	....	....	....	35	61	538	225	167	..
9....	46	....	....	....	....	....	35	61	538	213	136	..
10....	46	....	....	....	....	....	35	61	576	213	136	..
11....	46	....	....	....	....	....	35	61	616	225	136	..
12....	46	....	....	....	....	....	35	61	616	225	97	..
13....	46	....	....	....	....	....	35	61	557	213	29	..
14....	46	....	....	....	....	....	35	61	538	201	136	..
15....	46	....	....	....	....	....	35	61	538	167	156	..
16....	46	....	....	....	....	....	35	61	484	146	156	..
17....	46	....	....	....	....	....	35	61	432	178	146	..
18....	46	....	....	....	....	....	35	97	319	190	126	..
19....	46	....	....	....	....	....	35	167	304	156	70	..
20....	46	....	....	....	....	....	35	304	290	167	29	..
21....	46	....	....	....	....	....	35	398	290	167	106	..
22....	46	....	....	....	....	....	35	576	290	156	106	..
23....	46	....	....	....	....	....	35	415	290	146	97	..
24....	46	....	....	....	....	....	35	290	290	136	88	..
25....	46	....	....	....	....	....	35	415	263	146	88	..
26....	46	....	....	....	....	....	35	484	276	146	70	..
27....	46	....	....	....	....	....	35	484	276	146	97	..
28....	46	22	....	....	....	14	35	576	276	156	97	..
29....	46	....	....	....	....	14	35	680	276	116	97	..
30....	46	....	....	....	....	14	35	724	276	61	97	..
31....	46	....	....	....	....	14	....	746	....	178	97	..
Total	1426	....	....	....	....	....	957	7367	14636	5686	3285	..
Mean.	46	30	18	14	14	14	31.9	238	488	183	106	3
Max..	46	....	....	....	....	....	35	746	834	250	178	..
Min..	46	....	....	....	....	....	14	35	276	61	29	..
Acre-ft.	2830	1790	1110	861	778	861	1900	14600	29000	11300	6520	18

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Alamosa River Below Terrace Reservoir for Year Ending Sept. 30, 1934.
Drainage Area, 120 Square Miles. Altitude, 8,400 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1						12	35	293	137	35	20	24
2						12	35	293	105	35	20	24
3						12	35	148	95	30	20	24
4						12	35	148	77	16	20	24
5						12	35	148	69	16	20	20
6						24	35	148	69	35	20	16
7						24	35	209	61	35	20	20
8						24	35	293	54	35	35	20
9						24	35	323	54	35	30	24
10						24	35	323	61	4	24	24
11						24	35	338	69	6	24	20
12						24	105	354	61	12	30	17
13						24	183	308	35	16	35	17
14						24	264	235	30	16	35	17
15						24	308	209	24	12	24	17
16						24	308	196	24	35	30	17
17						24	308	148	24	35	35	16
18						24	308	137	24	16	35	16
19						24	308	137	24	16	41	16
20						24	183	137	24	16	41	16
21						24	183	115	16	8	41	16
22						24	183	105	16	16	41	16
23						35	264	105	16	30	41	25
24						35	354	105	16	16	35	45
25						35	436	95	16	16	30	32
26						35	488	105	16	16	24	27
27						35	436	115	16	41	24	27
28						35	436	137	35	41	24	25
29	34					35	436	137	35	41	24	25
30						35	436	115	35	41	24	25
31						35		115		41	24	
Total						783	6312	5774	1338	763	891	652
Mean	25	15	10	10	12	25.3	21.0	186	44.6	24.6	28.7	21.7
Max.						35	488	354	137	41	41	45
Min.						12	35	95	16	4	20	16
Cre-ft.	1540	893	615	615	666	1560	12500	11400	2650	1510	1760	1290

Discharge of La Jara Creek Near Capulin for Year Ending Sept. 30, 1933.
Drainage Area 73 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	11						12	20	29	9	24	5
2	11						14	24	24	9	50	5
3	11						17	32	20	9	50	4
4	11						20	36	17	9	62	5
5	11						12	40	17	17	68	7
6	11						12	34	14	17	62	5
7	8						14	33	14	17	56	5
8	8						12	38	14	14	50	2
9	8						14	38	12	12	50	5
10	11						12	32	9	9	50	7
11	8						12	27	9	9	34	7
12	8						14	27	9	9	24	5
13	8						13	26	9	9	17	5
14	8						15	22	9	9	14	12
15	8						15	25	12	9	12	12
16	8						17	25	14	9	29	9
17	8						16	25	14	12	34	9
18	8						19	34	14	12	34	9
19	8						18	44	17	9	34	9
20	11						18	74	20	5	34	9
21	11						14	81	17	5	34	9
22	11						16	74	17	7	29	9
23	11						16	42	17	7	29	9
24	4						18	54	17	12	29	9
25	1						18	60	14	29	34	9
26	1						17	65	14	44	34	7
27	4						16	58	9	44	39	7
28	4					12	19	58	9	44	34	7
29	4					12	18	63	9	44	34	7
30	4					12	21	57	9	20	7	7
31	2					12		40		17	5	
Total	241						469	1308	429	487	1096	216
Mean	7.77						15.6	42.2	14.3	15.7	35.4	7.20
Max.	11						21	81	29	44	68	12
Min.	1						12	20	9	5	5	2
Cre-ft.	478						928	2590	851	965	2180	428

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Jara Creek Near Capulin for Year Ending Sept. 30, 1934.
Drainage Area 73 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1							15	26	18	1		1
2							12	26	18	2		1
3							12	18	18	2		1
4							8	12	15	1		1
5	7						8	10	12	1		3
6							12	10	10	1		6
7							12	8	7	1		6
8							10	8	5	1		6
9							12	8	7	1		4
10							18	8	5	1		4
11							20	8	5	3		4
12							32	10	5	3		4
13		7					29	8	3	3		6
14							29	8	8	3		4
15							29	8	9	3		4
16							29	7	8	3		7
17							29	7	5	5		6
18							26	7	5	22		6
19							26	6	16	28		6
20							20	4	21	40		6
21	4						18	4	21	33		4
22							20	4	16	16		7
23							20	4	13	11		4
24							15	7	9	9		6
25							20	8	7	9		4
26							18	18	7	8		2
27							18	18	6	24		2
28						12	20	18	4	14		1
29						18	23	18	4	6		5
30						18	26	18	2	5		5
31						15	18	18	3	5		5
Total							586	342	289	263	131	10
Mean	5.0	6.0					19.5	11.0	9.6	8.5	4.2	3.8
Max.							32	26	21	40		
Min.							8	4	2	1		
Acre-ft.	307	357					1160	676	571	523	258	20

Discharge of Trinchera Creek Above Turner's Ranch for Year Ending Sept. 30, 1933.
Drainage Area 45 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	14	10					10	14	140	79	14	10
2	14	10					10	18	140	72	14	10
3	14	10					10	18	131	65	18	10
4	14	10					10	10	140	65	18	10
5	10	10					14	18	140	65	22	10
6	10	7					14	18	140	58	22	
7	10	7					10	14	140	52	22	
8	10	18					10	22	122	52	22	
9	10	14					7	22	131	52	22	
10	10	10					7	22	140	46	18	10
11	10	26					10	26	131	41	18	14
12	10	22					14	26	122	41	14	10
13	10	22					10	26	112	41	14	10
14	10	14					14	22	140	41	14	10
15	10	10					14	22	150	35	14	14
16	10						14	31	140	35	14	14
17	10						14	41	150	35	14	10
18	10						14	58	140	30	14	10
19	10						14	79	140	31	14	14
20	10						10	95	140	26	14	14
21	14						14	104	150	26	14	10
22	14						14	95	122	22	14	10
23	14						14	79	122	22	14	10
24	10						14	131	122	22	14	10
25	10						14	104	104	22	14	
26	18						14	112	95	22	14	
27	14						10	131	104	22	14	
28	14						18	131	95	22	14	
29	14					10	18	131	79	18	14	
30	10					10	14	150	79	18	10	
31	10					10	160	160	14	10		
Total	358						374	1930	3801	1192	482	31
Mean	11.5						12.5	62.3	127	38.5	15.5	10.4
Max.	18						18	160	150	79	22	18
Min.	10						7	10	79	14	10	
Acre-ft.	707						744	3830	7560	2370	953	62

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Trinchera Creek Above Turner's Ranch for Year Ending Sept. 30, 1934.
Drainage Area 45 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	9	9	....	....	....	....	10	32	42	13	13	9
2....	9	9	....	....	....	....	10	32	42	13	13	9
3....	9	9	....	....	....	....	11	32	42	13	13	7
4....	11	9	....	....	....	....	13	32	36	13	13	7
5....	11	9	....	....	....	....	16	32	32	13	13	7
6....	11	8	....	....	....	....	13	32	32	13	13	7
7....	11	11	....	....	....	....	16	27	27	13	13	7
8....	11	11	....	....	....	....	13	32	27	13	13	8
9....	11	9	....	....	....	....	13	32	27	11	13	8
10....	11	9	....	....	....	....	16	36	27	11	13	8
11....	11	9	....	....	....	....	19	42	23	11	11	7
12....	11	9	....	....	....	....	23	42	23	11	11	7
13....	11	9	....	....	....	....	27	42	23	11	11	8
14....	11	9	....	....	....	....	27	42	23	11	11	8
15....	11	9	....	....	....	....	27	42	23	11	11	8
16....	11	9	....	....	....	....	23	42	23	11	11	8
17....	11	9	....	....	....	....	23	42	23	11	11	7
18....	11	9	....	....	....	....	23	42	19	11	11	7
19....	11	9	....	....	....	....	23	42	19	13	11	7
20....	11	9	....	....	....	....	27	36	19	13	11	7
21....	11	8	....	....	....	....	27	36	16	11	9	7
22....	11	8	....	....	....	....	27	47	16	11	9	7
23....	11	8	....	....	....	....	32	42	16	13	9	10
24....	11	8	....	....	....	....	32	42	16	13	9	14
25....	9	8	....	....	....	....	32	42	16	13	9	10
26....	9	8	....	....	....	....	32	42	13	16	9	10
27....	9	8	....	....	....	....	32	42	13	19	9	10
28....	9	8	....	....	....	....	32	42	13	16	9	10
29....	9	8	....	....	....	....	32	42	13	13	9	10
30....	9	8	....	....	....	....	32	42	13	13	9	10
31....	9	....	....	....	....	....	....	42	....	13	9	....
Total	321	263	....	....	....	....	683	1194	697	391	339	249
Mean..	10.4	8.8	....	....	....	....	22.8	38.5	23.2	12.6	10.9	8.3
Max..	11	11	....	....	....	....	32	47	42	19	13	14
Min....	9	8	....	....	....	....	10	27	13	11	9	7
Acre-ft.	640	524	....	....	....	....	1360	2370	1380	775	670	494

Discharge of Trinchera Creek Above Mountain Home Reservoir for Year Ending Sept. 30, 1933.
Drainage Area 61 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	10	....	....	....	....	10	20	147	74	14	10
2....	6	7	....	....	....	....	8	21	147	59	14	11
3....	7	5	....	....	....	....	9	19	133	60	14	9
4....	7	5	....	....	....	....	11	12	132	59	15	8
5....	7	5	....	....	....	....	8	18	130	61	18	8
6....	7	5	....	....	....	....	7	21	130	57	15	8
7....	7	5	....	....	....	....	9	19	127	48	16	7
8....	8	3	....	....	....	....	10	19	115	44	15	8
9....	9	5	....	....	....	....	10	19	111	38	16	12
10....	10	5	....	....	....	....	10	19	114	35	15	11
11....	10	3	....	....	....	....	9	18	111	33	14	12
12....	9	4	....	....	....	....	10	18	118	33	14	14
13....	9	5	....	....	....	....	8	17	134	33	14	14
14....	8	6	....	....	....	....	6	16	145	29	12	17
15....	8	5	....	....	....	....	10	16	139	27	13	15
16....	9	....	....	....	....	....	12	17	134	23	14	14
17....	10	....	....	....	....	....	12	26	130	27	14	12
18....	10	....	....	....	....	....	13	36	132	25	13	11
19....	10	....	....	....	....	....	13	52	136	23	13	12
20....	10	....	....	....	....	....	10	80	132	21	14	11
21....	10	....	....	....	....	....	11	109	147	20	12	10
22....	12	....	....	....	....	....	15	108	155	21	13	10
23....	12	....	....	....	....	....	14	87	155	21	13	10
24....	11	....	....	....	....	....	14	88	144	20	12	10
25....	8	....	....	....	....	....	14	83	136	18	12	9
26....	8	....	....	....	....	....	14	81	127	18	14	9
27....	10	....	....	....	....	....	14	105	116	16	13	9
28....	10	....	....	....	....	....	15	111	101	15	12	8
29....	10	....	....	....	....	....	19	122	92	14	11	8
30....	10	....	....	....	....	....	20	133	85	13	11	8
31....	10	....	....	....	....	....	....	142	....	13	10	....
Total	278	....	....	....	....	....	345	1652	3855	998	420	315
Mean..	8.97	....	....	....	....	....	11.5	53.3	128	32.2	13.5	10.5
Max..	12	....	....	....	....	....	20	142	155	74	18	17
Min....	6	....	....	....	....	....	6	16	85	13	10	7
Acre-ft.	552	....	....	....	....	....	684	3280	7620	1980	830	625

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Trinchera Creek Above Mountain Home Reservoir for Year Ending Sept. 30, 1934.
Drainage Area 61 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	9	....	....	....	....	12	20	37	14	6	6
2....	8	9	....	....	....	....	12	21	36	12	6	6
3....	9	8	....	....	....	....	12	17	34	9	9	4
4....	12	10	....	....	....	....	10	13	33	10	8	4
5....	11	9	....	....	....	....	12	10	29	11	8	6
6....	12	9	....	....	....	....	10	11	27	9	10	6
7....	11	8	....	....	....	....	11	10	26	10	9	6
8....	10	9	....	....	....	....	13	11	26	12	9	8
9....	10	8	....	....	....	....	12	14	25	9	7	10
10....	9	8	....	....	....	....	12	24	23	9	6	9
11....	10	8	....	....	....	....	14	32	23	9	7	8
12....	10	8	....	....	....	....	18	29	21	9	8	8
13....	9	7	....	....	....	....	20	30	23	9	9	8
14....	9	7	....	....	....	....	20	28	22	9	10	7
15....	8	7	....	....	....	....	19	27	21	9	9	8
16....	8	7	....	....	....	....	17	27	21	9	9	8
17....	8	7	....	....	....	....	16	31	21	9	9	7
18....	9	7	....	....	....	....	15	33	20	8	10	7
19....	7	7	....	....	....	....	15	33	17	8	9	8
20....	7	7	....	....	....	....	12	32	16	8	9	7
21....	8	6	....	....	....	....	12	31	16	8	9	8
22....	8	6	....	....	....	....	12	40	15	8	10	8
23....	8	6	....	....	....	....	12	36	15	7	9	10
24....	8	6	....	....	....	....	12	36	15	12	9	20
25....	9	6	....	....	....	....	13	36	13	13	8	13
26....	8	6	....	....	....	....	16	36	12	16	7	12
27....	8	6	....	....	....	....	16	36	12	18	7	10
28....	9	6	....	....	....	....	17	36	11	15	7	10
29....	10	6	....	....	....	....	17	35	11	7	6	11
30....	9	6	....	....	....	....	19	42	15	6	6	11
31....	9	....	....	....	....	....	....	43	....	6	6	....
Total	280	219	....	....	....	....	427	860	636	308	251	254
Mean..	9.0	7.3	....	....	....	....	14.2	27.7	21.2	9.9	8.1	8.5
Max...	12	10	....	....	....	....	20	43	37	18	10	20
Min...	7	6	....	....	....	....	10	10	11	6	6	4
Acre-ft.	553	434	....	....	....	....	845	1700	1260	609	498	506

Discharge of Trinchera Creek Below Smith Reservoir for Year Ending Sept. 30, 1933.
Drainage Area, 396 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	2	....	....	....	....	26	28	58	8	8	7
2....	1	2	....	....	....	....	24	36	54	8	8	7
3....	1	2	....	....	....	....	22	43	49	8	8	7
4....	1	2	....	....	....	....	26	45	45	8	7	5
5....	1	2	....	....	....	....	22	45	46	8	8	2
6....	2	2	....	....	....	....	20	45	36	8	9	2
7....	2	2	....	....	....	....	15	56	26	7	10	1
8....	2	2	....	....	....	....	13	46	18	8	12	1
9....	1	2	....	....	....	....	12	52	12	8	12	2
10....	1	2	....	....	....	....	12	52	8	7	12	1
11....	1	1	....	....	....	....	11	54	6	8	15	1
12....	1	1	....	....	....	....	9	51	5	8	16	1
13....	2	2	....	....	....	....	22	58	3	7	8	1
14....	2	1	....	....	....	....	9	60	3	7	6	1
15....	2	1	....	....	....	....	7	59	4	7	7	1
16....	2	1	....	....	....	....	10	56	8	7	6	1
17....	2	1	....	....	....	....	11	48	11	7	5	1
18....	2	1	....	....	....	....	10	51	20	7	5	1
19....	2	1	....	....	....	....	9	58	40	8	6	1
20....	2	1	....	....	....	....	12	70	57	7	5	1
21....	2	1	....	....	....	....	15	94	65	7	5	1
22....	2	1	....	....	....	....	22	113	66	8	5	1
23....	2	1	....	....	....	....	24	130	67	7	5	1
24....	2	1	....	....	....	....	28	118	66	7	5	1
25....	2	1	....	....	....	....	30	98	63	7	5	1
26....	2	1	....	....	....	....	30	86	55	8	5	1
27....	2	1	....	....	....	....	28	78	39	8	5	1
28....	2	1	....	....	....	....	25	82	28	8	6	1
29....	1	1	....	....	....	....	18	86	16	8	7	1
30....	1	1	....	....	....	....	26	70	10	8	7	1
31....	2	....	....	....	....	....	28	61	....	8	7	....
Total	51	41	....	....	....	....	552	2029	984	235	235	55
Mean..	1.65	1.37	....	....	....	....	18.4	65.5	32.8	7.58	7.58	1.83
Max...	2	2	....	....	....	....	30	130	67	8	16	7
Min...	1	1	....	....	....	....	7	28	3	7	5	1
Acre-ft.	101	82	....	....	....	....	1090	4030	1950	466	466	109

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Trinchera Creek Below Smith Reservoir for Year Ending Sept. 30, 1934.
Drainage Area, 396 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	1	....	....	1	21	42	10	1	2	1	2
2....	1	1	....	....	1	20	39	7	3	2	1	1
3....	1	1	....	....	1	20	46	4	8	2	1	1
4....	1	1	....	....	1	19	38	3	7	2	1	1
5....	1	1	....	....	1	18	41	2	6	2	1	1
6....	1	1	....	....	1	18	43	2	6	2	1	1
7....	1	1	....	....	1	20	43	2	6	2	1	1
8....	1	1	....	....	1	22	42	2	6	5	2	1
9....	1	....	....	....	1	22	39	2	6	5	3	1
10....	1	....	....	....	1	21	36	2	6	4	3	1
11....	1	....	....	....	1	21	40	2	6	4	3	1
12....	1	....	....	....	1	20	37	2	6	3	3	1
13....	1	....	....	....	1	20	48	2	6	3	2	1
14....	2	....	....	....	1	23	57	1	6	3	2	1
15....	1	....	....	....	1	28	66	1	6	2	2	1
16....	1	....	....	....	1	24	71	1	7	2	2	1
17....	1	....	....	....	1	35	77	1	7	2	1	1
18....	1	....	....	....	1	23	73	1	7	2	1	1
19....	1	....	....	....	1	22	64	1	6	3	1	1
20....	1	....	....	....	2	24	56	1	6	3	1	1
21....	1	....	....	....	3	26	49	1	6	3	1	1
22....	1	....	....	....	5	28	44	1	6	3	1	1
23....	1	....	....	....	8	37	41	1	6	3	1	1
24....	1	....	....	....	11	30	36	1	2	3	1	1
25....	1	....	....	....	14	32	30	1	2	3	3	1
26....	1	....	....	....	16	35	35	1	2	3	5	1
27....	1	....	....	....	16	33	20	1	2	3	5	1
28....	1	....	....	....	19	35	20	1	2	3	5	1
29....	1	....	....	....	....	39	19	1	2	2	5	1
30....	1	....	....	....	....	41	17	1	2	1	5	1
31....	1	....	....	....	....	39	....	1	....	2	5	....
Total	32	....	....	....	113	814	1309	60	150	84	70	31
Mean..	1.0	1	1	1	4.0	26.3	43.6	1.9	5.0	2.7	2.3	1.0
Max..	2	....	....	....	19	41	77	10	8	5	5	2
Min..	1	....	....	....	1	18	17	1	1	1	1	1
Acre-ft.	61	60	61	61	222	1620	2590	117	298	166	141	60

Discharge of Sangre De Cristo Creek Near Fort Garland for Year Ending Sept. 30, 1933.
Drainage Area 187 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	8	....	....	....	....	....	40	130	30	7	3
2....	7	7	....	....	....	....	....	45	127	30	7	3
3....	7	7	....	....	....	....	....	53	117	33	8	2
4....	7	7	....	....	....	....	....	42	110	35	13	1
5....	7	7	....	....	....	....	....	45	108	32	22	1
6....	7	7	....	....	....	....	....	67	102	31	17	1
7....	7	7	....	....	....	....	....	52	94	29	16	1
8....	7	7	....	....	....	....	....	61	84	25	13	1
9....	7	8	....	....	....	....	....	76	74	23	10	9
10....	7	8	....	....	....	....	....	78	67	20	7	14
11....	7	8	....	....	....	....	....	83	62	20	7	21
12....	7	8	....	....	....	....	14	86	66	19	6	22
13....	7	8	....	....	....	....	28	89	69	19	6	17
14....	7	7	....	....	....	....	35	83	79	17	5	20
15....	7	7	....	....	....	....	28	80	68	16	5	16
16....	7	....	....	....	....	....	28	88	64	20	6	11
17....	8	....	....	....	....	....	28	116	68	31	7	9
18....	7	....	....	....	....	....	28	143	86	23	6	8
19....	7	....	....	....	....	....	25	166	84	18	7	9
20....	7	....	....	....	....	....	18	192	72	16	7	8
21....	7	....	....	....	....	....	14	214	72	15	6	6
22....	9	....	....	....	....	....	16	212	80	14	4	6
23....	9	....	....	....	....	....	21	184	71	12	4	6
24....	17	....	....	....	....	....	26	167	65	9	3	5
25....	31	....	....	....	....	....	32	154	54	7	4	5
26....	26	....	....	....	....	....	35	149	56	7	8	4
27....	13	....	....	....	....	....	33	146	51	7	9	5
28....	8	....	....	....	....	....	39	142	47	6	7	5
29....	7	....	....	....	....	....	48	142	44	6	5	5
30....	8	....	....	....	....	....	44	140	43	6	5	6
31....	8	....	....	....	....	....	....	134	....	6	4	....
Total	284	....	....	....	....	....	....	3469	2314	582	241	230
Mean..	9.2	7.0	....	....	....	....	23	112	77.1	18.8	7.8	7.7
Max..	31	....	....	....	....	....	....	214	130	35	22	22
Min..	7	....	....	....	....	....	....	40	43	6	4	1
Acre-ft.	566	417	....	....	....	....	1370	6890	4590	1160	480	458

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Sangre De Cristo Creek Near Fort Garland for Year Ending Sept. 30, 1934.
Drainage Area 187 Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	9	....	....	....	....	20	38	14	2	1	0
2....	6	10	....	....	....	....	30	39	12	2	1	0
3....	6	10	....	....	....	....	30	39	12	1	1	0
4....	6	10	....	....	....	....	19	40	12	0	1	0
5....	7	12	....	....	....	....	40	38	10	0	1	0
6....	6	8	....	....	....	....	26	34	9	0	1	0
7....	7	6	....	....	....	....	28	30	8	0	0	0
8....	7	....	....	....	....	....	32	27	8	0	0	0
9....	7	....	....	....	....	....	37	27	8	0	0	0
10....	7	....	....	....	....	....	45	27	6	0	0	0
11....	9	....	....	....	....	....	50	28	6	0	0	0
12....	9	....	....	....	....	....	64	28	5	0	0	0
13....	9	....	....	....	....	....	65	26	5	0	0	0
14....	9	....	....	....	....	....	68	26	4	0	0	0
15....	10	....	....	....	....	....	64	25	3	0	0	0
16....	9	....	....	....	....	....	61	23	4	0	0	0
17....	9	....	....	....	....	....	60	21	4	0	0	0
18....	9	....	....	....	....	....	59	17	4	0	0	0
19....	9	....	....	....	....	....	52	16	2	0	0	0
20....	9	....	....	....	....	....	50	16	2	0	0	0
21....	9	....	....	....	....	....	49	16	2	0	0	0
22....	9	....	....	....	....	....	49	18	2	0	0	0
23....	9	....	....	....	....	....	50	22	1	0	0	0
24....	9	....	....	....	....	....	53	19	1	0	0	0
25....	9	....	....	....	....	....	50	19	3	0	0	0
26....	9	....	....	....	....	....	45	19	2	0	0	0
27....	9	....	....	....	....	....	48	16	1	2	0	0
28....	9	....	....	....	....	....	49	14	1	12	0	0
29....	9	....	....	....	....	....	44	13	1	6	0	0
30....	9	....	....	....	....	....	39	14	2	2	0	0
31....	9	....	....	....	....	....	....	17	....	1	0	....
Total	255	....	....	....	....	....	1376	752	153	28	6	0
Mean.	8.23	6	....	....	....	....	45.9	24.3	5.1	0.9	0.2	0
Max..	10	....	....	....	....	....	68	40	14	12	1	0
Min...	6	....	....	....	....	....	19	13	1	0	0	0
Acre-ft.	506	357	....	....	....	....	2730	1490	303	55	12	0

Discharge of Sangre De Cristo Creek Above Smith Reservoir for Year Ending Sept. 30, 1933.
Drainage Area 231 Square Miles. Altitude ... Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	10	....	....	....	....	24	51	82	7	5	4
2....	5	10	....	....	....	....	23	36	74	7	4	4
3....	5	9	....	....	....	....	24	30	66	7	5	4
4....	5	8	....	....	....	....	27	38	80	9	11	4
5....	5	8	....	....	....	....	26	47	62	23	11	4
6....	5	8	....	....	....	....	17	65	46	9	11	4
7....	5	8	....	....	....	....	15	56	47	7	13	4
8....	5	6	....	....	....	....	15	58	38	6	13	4
9....	5	6	....	....	....	....	16	56	28	6	15	4
10....	5	8	....	....	....	....	13	60	21	5	9	5
11....	5	6	....	....	....	....	13	60	38	5	8	4
12....	5	6	....	....	....	....	13	67	25	5	6	12
13....	5	6	....	....	....	....	15	72	25	5	5	18
14....	5	9	....	....	....	....	17	69	47	4	4	28
15....	5	10	....	....	....	....	19	64	37	5	5	28
16....	5	7	....	....	....	....	14	59	29	4	5	26
17....	5	....	....	....	....	....	11	68	41	5	5	20
18....	5	....	....	....	....	....	11	82	46	5	4	17
19....	5	....	....	....	....	....	11	82	55	4	5	23
20....	5	....	....	....	....	....	13	84	58	4	5	17
21....	5	....	....	....	....	....	23	84	62	4	4	13
22....	6	....	....	....	....	....	27	88	67	4	5	11
23....	5	....	....	....	....	....	25	94	60	4	5	7
24....	5	....	....	....	....	....	23	104	57	4	5	6
25....	6	....	....	....	....	....	24	98	59	4	4	5
26....	6	....	....	....	....	....	24	88	44	5	5	5
27....	8	....	....	....	....	....	24	89	31	5	8	4
28....	10	....	....	....	....	....	24	96	23	4	6	4
29....	9	....	....	....	....	....	30	90	11	4	5	4
30....	10	....	....	....	....	....	58	79	8	4	4	4
31....	10	....	....	....	....	....	13	82	....	5	4	....
Total	180	....	....	....	....	....	619	2196	1367	179	204	297
Mean.	5.81	7.43	....	....	....	....	20.6	70.8	45.6	5.77	6.58	9.90
Max..	10	....	....	....	....	....	58	104	82	23	15	28
Min...	5	....	....	....	....	....	11	30	8	4	4	4
Acre-ft.	357	442	....	....	....	....	1230	4350	2710	355	405	589

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Sangre De Cristo Creek Above Smith Reservoir for Year Ending Sept. 30, 1934.
Drainage Area 231 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	6	....	....	....	....	50	17	6	3	4	3
2....	3	6	....	....	....	....	50	17	6	3	3	3
3....	3	6	....	....	....	....	50	11	6	3	3	3
4....	3	9	....	....	....	....	50	8	6	3	4	3
5....	3	8	....	....	....	....	51	8	6	4	4	3
6....	3	9	....	....	....	....	48	12	6	3	4	3
7....	3	9	....	....	....	....	47	11	6	4	4	3
8....	3	....	....	....	....	....	36	8	6	4	4	3
9....	3	....	....	....	....	....	37	8	5	4	4	3
10....	3	....	....	....	....	....	38	8	5	4	5	3
11....	3	....	....	....	....	....	43	9	5	4	5	3
12....	3	....	....	....	....	....	52	7	4	4	3	3
13....	3	....	....	....	....	....	62	7	4	3	3	3
14....	3	....	....	....	....	....	65	8	4	4	3	3
15....	3	....	....	....	....	....	65	8	4	4	3	3
16....	3	....	....	....	....	....	74	8	4	3	3	3
17....	3	....	....	....	....	....	74	8	4	3	3	3
18....	3	....	....	....	....	....	60	8	4	3	3	3
19....	3	....	....	....	....	....	47	8	4	3	3	3
20....	3	....	....	....	....	....	41	8	4	3	3	3
21....	3	....	....	....	....	....	37	7	3	3	3	3
22....	3	....	....	....	....	....	39	7	3	3	3	3
23....	3	....	....	....	....	....	36	7	3	4	3	3
24....	3	....	....	....	....	....	33	7	3	4	3	3
25....	3	....	....	....	....	....	28	7	3	4	3	3
26....	4	....	....	....	....	....	22	8	3	4	3	3
27....	4	....	....	....	....	....	25	8	3	4	3	3
28....	4	....	....	....	....	....	26	7	3	4	3	3
29....	4	....	....	....	....	....	30	7	3	4	3	3
30....	5	....	....	....	....	....	22	7	3	4	3	3
31....	5	....	....	....	....	....	....	7	....	4	3	....
Total	101	....	....	....	....	....	1338	266	129	111	104	90
Mean..	3.3	8	....	....	....	....	44.6	8.6	4.3	3.6	3.4	3.0
Max..	5	....	....	....	....	....	74	17	6	4	5	3
Min..	3	....	....	....	....	....	22	7	3	3	3	3
Acre-ft.	203	476	....	....	....	....	2650	529	256	221	209	179

Discharge of Ute Creek Near Fort Garland for Year Ending Sept. 30, 1933.
Drainage Area, 32 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	....	....	....	....	....	10	19	90	32	14	12
2....	13	....	....	....	....	....	9	20	93	35	11	12
3....	12	....	....	....	....	....	10	22	71	36	18	10
4....	13	....	....	....	....	....	13	24	67	54	62	10
5....	13	....	....	....	....	....	9	26	65	62	62	9
6....	12	....	....	....	....	....	8	24	74	49	106	8
7....	11	....	....	....	....	....	9	17	73	37	71	8
8....	12	....	....	....	....	....	9	17	56	30	56	6
9....	12	....	....	....	....	....	9	19	59	27	44	18
10....	11	....	....	....	....	....	9	18	67	25	39	30
11....	12	....	....	....	....	....	8	17	71	22	35	35
12....	12	....	....	....	....	....	9	16	74	24	30	40
13....	12	....	....	....	....	....	6	16	83	22	25	34
14....	10	....	....	....	....	....	8	15	80	20	21	45
15....	10	....	....	....	....	....	13	15	78	20	17	39
16....	10	....	....	....	....	....	14	16	78	18	17	33
17....	10	....	....	....	....	....	14	20	99	18	18	27
18....	10	....	....	....	....	....	15	28	82	15	17	27
19....	9	....	....	....	....	....	15	37	104	16	14	31
20....	10	....	....	....	....	....	14	47	81	16	15	25
21....	10	....	....	....	....	....	14	54	70	16	16	21
22....	16	....	....	....	....	....	14	53	73	15	12	19
23....	14	....	....	....	....	....	17	39	65	14	11	18
24....	12	....	....	....	....	....	19	42	60	14	11	15
25....	10	....	....	....	....	....	19	51	54	12	13	13
26....	13	....	....	....	....	....	19	44	53	12	22	12
27....	14	....	....	....	....	....	17	52	46	8	25	12
28....	14	....	....	....	....	....	17	59	45	6	22	10
29....	16	....	....	....	....	....	21	63	41	6	17	9
30....	14	....	....	....	....	....	15	22	75	35	4	15
31....	14	....	....	....	....	....	8	....	81	....	5	13
Total	373	....	....	....	....	....	390	1046	2087	690	869	596
Mean..	12.0	....	....	....	....	....	13.0	33.7	69.6	22.3	28.0	19.9
Max..	16	....	....	....	....	....	22	81	104	62	106	45
Min..	9	....	....	....	....	....	6	15	35	4	11	6
Acre-ft.	738	....	....	....	....	....	774	2070	4140	1370	1720	1180

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Ute Creek Near Fort Garland for Year Ending Sept. 30, 1934.
Drainage Area 32 Square Miles. Altitude . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	8	....	....	....	....	15	42	29	7	6	6
2....	9	7	....	....	....	....	15	39	26	8	6	6
3....	8	6	....	....	....	....	15	35	26	6	10	5
4....	10	8	....	....	....	....	18	32	22	6	9	4
5....	11	6	....	....	....	....	18	27	18	6	7	4
6....	10	6	....	....	....	....	16	29	16	6	7	4
7....	10	8	....	....	....	....	18	40	15	6	6	4
8....	8	10	....	....	....	....	19	49	14	6	6	10
9....	10	9	....	....	....	....	20	53	12	6	4	10
10....	10	9	....	....	....	....	24	66	12	13	6	8
11....	11	10	....	....	....	....	32	67	11	10	5	8
12....	10	10	....	....	....	....	45	48	10	8	10	8
13....	11	10	....	....	....	....	49	55	11	6	6	8
14....	12	10	....	....	....	....	49	49	10	6	7	7
15....	12	10	....	....	....	....	47	40	11	5	10	8
16....	10	9	....	....	....	....	42	40	11	4	10	7
17....	10	9	....	....	....	....	37	37	11	6	10	4
18....	10	9	....	....	....	....	33	35	10	26	12	4
19....	10	9	....	....	....	....	33	38	7	15	10	4
20....	10	9	....	....	....	....	38	33	5	12	9	4
21....	10	8	....	....	....	....	37	33	4	8	10	4
22....	10	8	....	....	....	....	38	33	4	5	10	5
23....	9	8	....	....	....	....	45	33	4	7	9	19
24....	8	8	....	....	....	....	55	32	4	8	6	71
25....	8	8	....	....	....	....	46	31	4	6	8	34
26....	8	8	....	....	....	....	43	33	4	14	7	25
27....	7	8	....	....	....	....	39	32	4	15	6	18
28....	8	8	....	....	....	....	35	31	4	17	5	15
29....	8	8	....	....	....	....	37	31	6	12	5	15
30....	7	8	....	....	....	....	40	37	11	7	4	14
31....	8	....	....	....	....	....	....	35	....	7	4	....
Total	293	252	....	....	....	....	998	1225	336	274	231	343
Mean..	9.5	8.4	....	....	....	....	33.3	39.5	11.2	8.8	7.5	11.4
Max...	12	10	....	....	....	....	55	67	29	26	12	71
Min...	7	6	....	....	....	....	15	27	4	4	4	4
Acre-ft.	584	500	....	....	....	....	1980	2430	666	541	461	678

Discharge of Conejos River at Broyles Bridge Near Mogote for Year Ending Sept. 30, 1933.
Drainage Area 282 Square Miles. Altitude 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	69	59	....	....	....	....	122	181	2230	794	216	74
2....	67	65	....	....	....	....	144	208	2290	728	188	71
3....	69	67	....	....	....	....	164	208	1990	630	160	66
4....	67	59	....	....	....	....	196	204	1890	638	233	60
5....	62	54	....	....	....	....	157	212	1810	638	630	58
6....	59	59	....	47	....	....	130	229	1830	664	424	53
7....	59	60	....	....	....	....	142	200	1690	737	366	52
8....	60	50	....	....	....	....	144	208	1320	638	330	52
9....	85	52	....	....	....	....	160	204	1580	604	270	111
10....	81	53	....	....	....	....	147	188	1890	540	256	109
11....	77	47	....	....	....	....	125	188	1990	564	216	109
12....	77	48	....	....	....	....	133	164	1970	572	192	118
13....	75	53	....	....	....	....	144	153	1890	494	177	118
14....	75	53	....	....	....	....	128	147	1560	457	164	265
15....	73	52	....	....	....	....	122	144	1510	472	160	252
16....	69	48	....	....	....	....	142	167	1550	410	142	164
17....	64	48	....	....	38	66	153	281	1500	336	139	130
18....	65	50	....	....	....	....	192	548	1470	286	128	167
19....	59	44	....	....	....	....	220	842	1440	282	120	378
20....	71	42	....	....	....	....	174	1140	1530	297	136	220
21....	77	44	....	....	....	....	153	1320	1510	348	120	188
22....	87	42	50	....	....	....	128	1300	1460	450	107	242
23....	89	41	....	....	....	....	128	960	1300	417	104	192
24....	89	38	....	....	....	....	130	1020	1380	336	100	174
25....	77	38	....	....	....	....	153	1160	1270	261	92	150
26....	75	38	....	....	....	....	170	1320	1210	238	88	142
27....	79	40	....	....	....	....	184	1600	1040	216	98	128
28....	79	40	....	....	....	....	275	1770	1050	188	100	118
29....	75	40	....	....	....	....	286	1930	990	167	86	111
30....	71	40	....	....	....	....	233	2040	880	150	78	104
31....	64	....	....	....	....	....	....	2140	....	157	77	....
Total	2245	1464	....	....	....	....	4879	22376	47020	13709	5697	4176
Mean..	72.4	48.8	42	45	40	72	163	722	1570	442	184	139
Max...	89	67	....	....	....	....	286	2140	2290	794	630	378
Min...	59	....	....	....	....	....	122	144	880	150	77	52
Acre-ft.	4450	2900	2580	2770	2220	4430	9700	44400	93400	27200	11300	8270

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Conejos River at Broyles Bridge Near Mogote for Year Ending Sept. 30, 1934.
Drainage Area 282 Square Miles. Altitude 8,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	104	74	62	....	....	48	159	940	322	62	73	70
2....	111	82	52	....	40	48	159	726	265	65	61	76
3....	125	71	53	33	....	48	147	591	250	60	62	62
4....	204	72	62	....	....	48	115	509	227	55	65	55
5....	192	71	58	....	....	55	118	501	193	51	63	51
6....	242	69	56	....	....	55	115	688	182	48	52	51
7....	188	70	....	....	....	55	112	940	165	47	52	51
8....	164	72	....	....	....	55	122	951	147	51	54	55
9....	147	68	42	....	....	55	175	1020	135	60	50	57
10....	136	68	....	....	....	55	285	1080	125	69	47	63
11....	128	66	....	....	....	60	429	984	112	62	57	69
12....	128	65	....	....	....	60	616	940	106	63	61	51
13....	125	65	....	....	....	60	660	840	101	66	54	51
14....	130	65	....	....	....	70	607	716	65	60	55	49
15....	133	64	....	....	....	70	633	582	87	56	52	48
16....	120	64	....	....	47	80	633	565	84	57	84	47
17....	111	62	....	....	....	80	633	541	86	58	68	44
18....	104	63	....	....	....	80	457	517	82	72	84	44
19....	98	61	....	....	....	80	443	478	76	56	82	46
20....	90	60	....	37	....	80	464	415	70	52	70	45
21....	84	61	....	....	....	90	582	382	66	52	75	46
22....	80	59	....	....	....	100	726	363	62	63	84	46
23....	78	59	....	....	....	110	811	356	58	79	92	55
24....	77	60	....	....	....	120	870	328	65	87	78	317
25....	76	59	....	....	....	130	910	328	87	92	66	182
26....	76	58	....	....	....	140	850	317	72	96	62	144
27....	74	59	....	....	....	140	860	317	65	125	60	122
28....	72	58	....	....	....	135	880	301	58	115	58	108
29....	70	61	....	....	....	147	900	280	54	115	57	97
30....	70	64	....	....	....	162	920	334	60	96	66	33
31....	68	....	....	....	....	182	....	356	....	82	57	....
Total	3605	1950	....	....	....	2698	15401	18186	3527	2172	2001	2235
Mean.	116	65	41	35	45	87	513	587	118	70.1	64.5	74.5
Max..	242	82	....	....	....	....	920	1080	322	125	92	317
Min...	68	58	....	....	....	....	112	280	54	47	47	33
Acre-ft.	7130	3870	2520	2150	2500	5350	30500	36100	7020	4310	3970	4430

Discharge of Conejos River at Mouth Near Las Sauces for Year Ending Sept. 30, 1933.
Drainage Area, 887 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	44	71	70	....	....	....	62	17	1710	135	4	32
2....	53	75	70	....	....	....	62	14	1800	92	4	32
3....	44	67	70	....	....	....	47	16	1800	81	5	34
4....	46	66	67	....	....	....	36	14	1500	85	4	26
5....	46	69	63	59	....	....	33	12	1340	55	5	14
6....	44	72	60	....	....	....	27	12	1260	46	6	10
7....	44	72	....	....	....	....	20	12	1250	39	8	9
8....	44	66	....	....	....	....	17	11	985	29	6	10
9....	47	67	....	....	....	....	17	11	812	23	6	19
10....	44	66	63	....	....	....	15	12	919	25	9	23
11....	50	63	....	....	....	....	15	10	1130	23	10	28
12....	53	69	....	....	....	....	14	10	1190	25	7	28
13....	50	72	....	....	....	....	15	12	1190	21	8	32
14....	51	72	....	....	....	....	15	12	1040	20	10	31
15....	61	72	....	....	....	....	14	12	808	18	7	31
16....	63	77	....	....	79	....	14	12	776	17	6	34
17....	61	76	....	....	....	97	13	12	776	18	6	34
18....	66	68	....	....	....	93	8	20	745	11	6	34
19....	69	71	....	....	....	92	13	182	736	9	6	34
20....	66	72	....	....	....	88	10	539	808	8	6	34
21....	66	74	....	....	....	86	10	861	1010	7	6	36
22....	72	74	....	....	....	83	10	1130	1010	5	6	36
23....	69	74	63	....	....	80	10	838	919	6	6	33
24....	69	74	....	....	....	77	9	643	836	7	6	39
25....	75	74	....	....	....	76	9	710	803	7	6	31
26....	80	74	....	....	....	72	10	808	723	6	6	24
27....	75	74	....	....	....	71	8	936	606	7	6	23
28....	69	74	....	....	....	66	7	1190	489	7	9	25
29....	72	74	....	....	....	66	16	1360	422	7	19	25
30....	74	72	....	....	....	66	23	1490	228	5	27	24
31....	66	....	....	....	....	66	....	1580	....	4	29	....
Total	1833	2141	....	....	....	....	579	12498	29626	828	255	825
Mean.	59.1	71.4	62	63	75	78	19.3	403	988	26.7	8.23	27.5
Max..	80	77	....	....	....	....	62	1580	1800	135	29	39
Min...	44	63	....	....	....	....	7	10	228	4	4	9
Acre-ft.	3630	4250	3810	3870	4170	4800	1150	24800	58800	1640	506	1640

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Conejos River at Mouth Near Las Sauces for Year Ending Sept. 30, 1934.
Drainage Area, 887 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	24	49	47	71	77	72	31	18	2	0	0	0
2....	25	51	47	71	80	72	31	23	2	2	0	0
3....	25	51	47	71	80	72	25.5	16	2	0	0	0
4....	27	52	50	74	82	70	20.5	18	2	2	0	0
5....	30	54	46	72	86	68	15.5	13	2	4	0	0
6....	28	54	46	71	87	68	12.5	13	2	2	0	0
7....	29	52	52	75	87	67	12.5	13	2	4	0	0
8....	30	51	59	83	90	67	12.5	13	2	6	0	0
9....	33	52	68	83	85	68	12.5	14	2	6	0	5
10....	32	54	77	85	81	61	13	23	2	8	0	11
11....	33	54	80	74	74	54	14	24	2	5	0	11
12....	41	55	71	86	74	52	34	41	2	4	0	12
13....	44	55	74	78	72	52	14	35	2	2	0	11
14....	44	55	79	78	76	51	14	20	2	2	0	10
15....	45	56	91	78	76	51	14	13	2	2	0	12
16....	45	58	77	76	79	61	14	13	2	2	0	11
17....	48	58	67	76	79	62	19	12	3	1	0	11
18....	48	59	67	71	75	62	20	12	3	1	0	11
19....	48	56	70	71	71	61	19	12	2	1	0	12
20....	45	48	75	66	71	56	25	8	2	1	0	13
21....	44	34	80	66	71	53	22	8	1	0	0	13
22....	44	35	71	71	73	54	22	6	1	0	0	13
23....	46	37	68	69	73	53	27	5	1	0	0	13
24....	48	47	66	69	73	50	23	4	1	0	0	13
25....	48	47	65	76	73	54	27	2	1	0	0	12
26....	48	47	65	77	73	50	27	2	2	0	0	10
27....	48	47	68	74	73	39	34	2	0	0	0	9
28....	48	47	65	74	73	38	24	2	0	0	0	9
29....	48	47	66	79	....	35	20	2	0	0	0	9
30....	49	47	68	79	....	32	20	2	0	0	0	8
31....	51	....	66	79	....	31	....	2	....	0	0	....
Total	1246	1509	2038	2323	2164	1736	619.5	391	49	55	0	239
Mean.	40.2	50.3	65.7	74.9	77.3	56.0	20.6	12.6	1.6	1.8	0	8.0
Max..	51	59	91	86	90	72	34	41	3	8	0	13
Min..	24	34	46	66	71	31	12.5	2	0	0	0	0
Acre-ft.	2470	2990	4040	4610	4290	3440	1230	775	95	111	0	476

Discharge of San Antonio River Near Ortiz for Year Ending Sept. 30, 1933.
Drainage Area, 110 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	2	....	....	....	....	29	70	162	6	0	1
2....	4	2	....	....	....	....	....	70	138	3	1	1
3....	4	3	....	....	....	....	....	70	116	6	1	0
4....	4	3	....	....	....	....	....	70	88	3	3	0
5....	4	5	....	....	....	....	....	70	88	20	6	0
6....	4	8	....	....	....	....	....	70	79	16	3	0
7....	4	6	....	....	....	....	....	70	72	44	3	0
8....	4	4	....	....	....	....	....	70	64	16	2	0
9....	4	4	....	....	....	....	....	70	50	13	2	0
10....	4	5	....	....	....	....	....	70	44	10	1	0
11....	4	....	....	....	....	....	....	70	39	8	1	0
12....	5	....	....	....	....	....	....	72	34	8	1	0
13....	5	....	....	....	....	....	....	72	29	8	0	0
14....	4	....	....	....	....	....	....	64	24	8	0	6
15....	4	....	....	....	....	....	....	64	24	8	1	6
16....	5	....	....	....	....	....	....	79	24	6	0	2
17....	4	....	....	....	....	....	....	174	29	6	0	2
18....	4	....	....	....	....	....	....	252	24	6	1	2
19....	3	....	....	....	....	....	....	294	24	3	1	3
20....	4	....	2038	2323	....	1736	619.5	309	34	2	1	3
21....	5	....	....	....	....	....	....	369	24	3	0	2
22....	7	....	....	....	....	....	....	324	24	3	0	2
23....	9	....	....	....	....	....	....	225	24	6	0	2
24....	7	....	....	....	....	....	....	266	20	3	0	2
25....	7	....	....	....	....	....	....	266	16	3	0	1
26....	7	....	....	....	....	....	....	266	13	2	0	1
27....	6	....	....	....	....	....	80	266	13	1	0	1
28....	6	....	....	....	....	....	....	266	10	1	1	1
29....	5	....	....	....	....	....	....	212	8	1	1	1
30....	4	....	....	....	....	....	....	199	8	1	1	1
31....	4	....	....	....	....	....	....	174	....	0	1	....
Total	149	....	....	....	....	....	....	4983	1346	224	32	40
Mean.	4.81	....	....	....	....	....	....	60	161	44.9	7.23	1.33
Max..	....	....	....	....	....	....	....	....	162	44	6	6
Min..	....	....	....	....	....	....	....	....	8	0	0	0
Acre-ft.	296	....	....	....	....	....	3570	9900	2670	445	63	79

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Antonio River Near Ortiz for Year Ending Sept. 30, 1934.
Drainage Area, 110 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2	2	....	....	....	....	25	13	6	0	0	1
2....	2	2	....	....	....	....	25	10	2	0	0	6
3....	3	2	....	....	....	....	25	10	2	0	0	3
4....	8	2	....	....	....	....	28	10	1	0	0	1
5....	8	2	....	....	....	....	28	10	1	0	0	1
6....	8	2	....	....	....	....	30	8	1	0	10	1
7....	6	....	....	....	....	....	30	8	0	0	6	1
8....	3	....	....	....	....	....	30	8	0	0	2	1
9....	3	....	....	....	....	....	34	6	0	0	0	1
10....	2	....	....	....	....	....	34	6	0	0	0	2
11....	2	....	....	....	....	....	44	3	0	0	0	2
12....	2	....	....	....	....	....	57	3	0	0	0	2
13....	2	....	....	....	....	....	64	2	0	0	0	1
14....	2	....	....	....	....	....	57	2	0	0	0	0
15....	3	....	....	....	....	....	57	1	0	0	0	0
16....	3	....	....	....	....	....	50	1	0	0	0	0
17....	3	....	....	....	....	....	50	1	0	0	6	0
18....	3	....	....	....	....	....	44	1	0	0	6	0
19....	2	....	....	....	....	....	39	1	0	0	6	1
20....	2	....	....	....	....	....	39	1	0	0	6	0
21....	1	....	....	....	....	....	39	1	0	0	6	0
22....	1	....	....	....	....	....	34	1	0	0	2	0
23....	1	....	....	....	....	....	29	1	0	0	2	0
24....	2	....	....	....	....	....	24	1	0	0	1	0
25....	2	....	....	....	....	....	24	1	0	0	1	6
26....	2	....	....	....	....	....	20	1	0	0	1	8
27....	2	....	....	....	....	....	16	1	0	0	0	3
28....	2	....	....	....	....	....	16	8	0	0	0	1
29....	2	....	....	....	....	....	13	3	0	1	0	1
30....	2	....	....	....	....	....	13	2	0	1	0	1
31....	2	....	....	....	....	....	....	3	....	0	0	....
Total	88	....	....	....	....	....	1018	128	13	2	55	44
Mean.	2.8	2	....	....	....	....	33.9	4.1	0.4	0.1	1.8	1.5
Max..	8	....	....	....	....	....	64	13	6	1	10	8
Min..	1	....	....	....	....	....	13	1	0	0	0	0
Acre-ft.	172	119	....	....	....	....	2020	252	24	6	111	89

Discharge of San Antonio River at Mouth for Year Ending Sept. 30, 1933.
Drainage Area, 348 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	10	....	....	....	....	5	57	781	41	1	0
2....	1	10	....	....	....	....	5	54	785	36	1	0
3....	1	10	....	....	....	....	5	52	645	29	1	0
4....	1	10	....	....	....	....	5	56	546	21	1	0
5....	2	10	....	....	....	....	5	49	482	17	1	0
6....	3	10	....	....	....	....	6	51	449	14	6	0
7....	4	10	....	....	....	....	6	51	434	10	1	0
8....	5	10	....	....	....	....	6	42	344	8	1	0
9....	5	10	....	....	....	....	6	43	317	8	1	0
10....	5	10	....	....	....	....	6	41	315	5	1	0
11....	5	10	....	....	....	....	6	40	312	8	1	0
12....	5	10	....	....	....	....	8	39	291	17	1	0
13....	5	10	....	....	....	....	6	36	308	14	0	0
14....	7	8	....	....	....	....	5	43	280	10	1	1
15....	8	8	....	....	....	....	6	48	246	8	0	1
16....	8	10	....	....	....	....	6	48	246	5	1	1
17....	7	10	....	....	4	24	6	68	252	2	1	1
18....	8	10	....	....	....	....	10	181	233	4	1	1
19....	6	10	....	....	....	....	31	400	237	4	1	1
20....	8	10	....	....	....	....	32	710	256	4	1	1
21....	6	8	....	....	....	....	22	1030	260	4	1	1
22....	8	8	....	....	....	....	18	998	246	3	1	1
23....	6	8	2	....	....	....	16	638	227	2	1	1
24....	7	8	....	....	....	....	13	666	204	2	1	1
25....	6	8	....	....	....	....	11	800	190	2	1	1
26....	6	8	....	....	....	....	32	842	172	1	1	1
27....	8	8	....	....	....	....	45	922	151	1	1	1
28....	9	8	....	....	....	....	82	950	126	1	0	1
29....	10	8	....	....	....	....	105	1000	98	1	1	1
30....	11	8	....	....	....	....	75	1050	62	1	1	1
31....	11	....	....	....	....	....	....	950	....	1	0	....
Total	183	276	....	....	....	....	590	11955	9495	284	32	17
Mean.	5.90	9.20	4.0	3.0	4.0	15.0	19.7	386	316	9.16	1.03	0.57
Max..	11	10	....	....	....	....	105	1050	785	41	6	1
Min..	1	8	....	....	....	....	5	36	62	1	0	0
Acre-ft.	363	547	246	184	222	922	1170	23700	18800	563	63	34

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Antonio River at Mouth For Year Ending Sept. 30, 1934.
Drainage Area, 348 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	64	14	0	0	0
2....	5	....	9	69	14	0	0	0
3....	7	60	12	0	0	0
4....	6	62	11	0	0	0
5....	6	53	8	0	0	0
6....	0.5	....	....	....	....	....	4	48	6	0	0	0
7....	4	41	3	0	0	0
8....	4	44	2	0	0	0
9....	4	44	2	0	0	0
10....	4	42	0.6	0	0	0
11....	8	54	0.5	0	0	0
12....	40	82	0.4	0	0	0
13....	79	62	0.4	0	0	0
14....	74	42	0.4	0	0	0
15....	68	36	0.4	0	0	0
16....	3	....	7	....	60	31	0.4	0	0	0
17....	52	27	0.4	0	0	0
18....	41	24	0.4	0	0.5	0
19....	23	19	0.4	0	10	0
20....	19	15	0.4	0	6	0
21....	18	14	0.2	0	2	0
22....	50	14	0.2	0	0.8	0
23....	68	14	0.3	0	0.4	0
24....	69	13	0.4	0	0.2	0
25....	1.0	....	....	....	....	....	66	13	0.4	0	0	0
26....	75	12	0.2	0	0	0
27....	3	....	....	....	....	72	10	0.2	0	0	0
28....	4	68	10	0	0	0	0
29....	2	65	10	0	0	0.8	0
30....	1	65	11	0	0	0.2	0
31....	2	....	12	....	0	0	....
Total	1136	1052	78.6	0	20.9	0
Mean.	0.75	3.0	3.0	4.0	6.0	5.0	37.9	33.9	2.62	0	0.67	0
Max..	79	82	14	0	10	0
Min..	4	10	0	0	0	0
Acre-ft.	46	179	184	246	333	307	2260	2080	156	0	41	0

Discharge of Los Pinos Creek Near Ortiz for Year Ending Sept. 30, 1933.
Drainage Area, 167 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	21	....	....	....	....	....	49	164	930	139	31	18
2....	21	....	....	....	....	....	49	152	850	128	31	18
3....	21	....	....	....	....	....	56	141	746	139	31	18
4....	21	....	....	....	....	....	70	130	647	120	46	14
5....	21	....	....	....	....	....	62	130	601	110	88	14
6....	21	....	....	....	....	....	56	164	624	110	65	14
7....	21	....	....	....	....	....	70	130	556	120	58	14
8....	21	....	....	....	....	....	77	152	473	103	50	14
9....	28	....	....	....	....	....	92	152	513	103	45	44
10....	28	....	....	....	....	....	84	141	534	86	39	28
11....	28	....	....	....	....	....	77	130	513	94	39	21
12....	21	....	....	....	....	....	70	120	492	88	33	24
13....	21	....	....	....	....	....	62	101	473	88	28	28
14....	21	....	....	....	....	....	62	101	418	72	28	84
15....	24	....	....	....	....	....	56	101	418	72	28	84
16....	24	....	....	....	....	....	62	152	436	66	24	44
17....	28	....	....	....	....	....	77	303	382	74	27	38
18....	28	....	....	....	....	....	110	492	404	74	27	33
19....	28	....	....	....	....	....	130	850	369	65	27	70
20....	28	....	....	....	....	....	101	1220	404	65	27	38
21....	28	....	....	....	....	....	92	1130	353	72	24	38
22....	28	....	....	....	....	....	77	930	324	78	20	38
23....	28	....	....	....	....	....	77	720	294	86	20	28
24....	28	....	....	....	....	....	84	824	279	71	20	28
25....	28	....	....	....	....	....	120	930	250	71	20	28
26....	28	....	....	....	....	....	141	957	238	56	20	24
27....	28	....	....	....	....	....	216	1010	210	56	20	24
28....	28	....	....	....	....	....	288	1040	197	44	20	21
29....	28	....	....	....	....	....	258	1010	171	37	20	21
30....	24	....	....	....	....	....	189	984	162	32	20	21
31....	24	....	....	....	....	....	....	957	....	32	20	....
Total	775	....	....	....	....	....	3014	15518	13261	2551	996	931
Mean.	25.0	....	....	....	....	....	100	501	442	82.3	32.1	31.0
Max..	28	....	....	....	....	....	288	1220	930	139	88	84
Min..	21	....	....	....	....	....	49	101	162	32	20	14
Acre-ft.	1540	....	....	....	....	....	5950	30800	26300	5060	1970	1840

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Los Finos Creek Near Ortiz for Year Ending Sept. 30, 1934.
Drainage Area, 167 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	21	21	....	....	....	....	200	176	70	13	12	14
2....	21	24	....	....	....	....	200	164	56	13	12	14
3....	21	21	....	....	....	....	200	152	56	13	12	11
4....	44	21	....	....	....	....	175	152	56	13	12	8
5....	44	21	....	....	....	....	175	130	49	12	12	8
6....	49	33	....	....	....	....	200	141	44	12	82	8
7....	32	33	....	....	....	....	200	164	38	9	13	8
8....	32	38	....	....	....	....	250	164	33	7	6	8
9....	28	33	....	....	....	....	300	164	33	12	6	8
10....	24	32	....	....	....	....	334	164	33	12	6	8
11....	24	27	....	....	....	....	328	152	28	12	5	8
12....	24	27	....	....	....	....	360	152	24	11	11	8
13....	24	20	....	....	....	....	344	130	24	11	8	8
14....	24	20	....	....	....	....	324	130	24	11	6	8
15....	28	20	....	....	....	....	318	110	21	11	8	8
16....	24	20	....	....	....	....	288	110	18	10	11	6
17....	24	20	....	....	....	....	273	101	18	10	33	6
18....	21	20	....	....	....	....	216	92	18	17	24	6
19....	21	16	....	....	....	....	230	92	18	10	18	5
20....	21	16	....	....	....	....	230	84	14	10	18	8
21....	21	15	....	....	....	....	244	77	14	10	18	14
22....	21	19	....	....	....	....	258	77	14	10	14	14
23....	21	15	....	....	....	....	244	84	11	12	14	18
24....	21	15	....	....	....	....	244	70	14	15	8	86
25....	21	15	....	....	....	....	258	70	24	15	8	96
26....	21	15	....	....	....	....	258	65	18	15	8	47
27....	21	15	....	....	....	....	216	71	13	15	8	41
28....	21	15	....	....	....	....	202	62	13	22	8	31
29....	21	15	....	....	....	....	202	56	13	30	8	31
30....	21	15	....	....	....	....	189	70	13	22	18	20
31....	21	....	....	....	....	....	....	84	....	15	11	....
Total	782	637	....	....	....	....	7460	3510	822	410	438	564
Mean.	25.2	21.2	....	....	....	....	249	113	27.4	13.2	14.1	18.8
Max..	49	38	....	....	....	....	360	176	70	30	82	96
Min..	21	15	....	....	....	....	175	56	11	7	5	5
Acre-ft.	1550	1260	....	....	....	....	14800	6950	1630	812	867	1120

Discharge of Culebra River Near San Luis for Year Ending Sept. 30, 1933.
Drainage Area, 220 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	29	29	28	....	....	....	22	16	211	185	246	65
2....	28	29	28	....	....	....	22	15	225	145	118	54
3....	26	28	31	....	....	....	22	18	246	118	204	42
4....	31	28	31	....	....	....	26	20	231	94	210	43
5....	25	26	29	....	....	....	22	18	244	137	123	60
6....	25	14	28	....	....	....	18	19	251	136	78	72
7....	26	28	29	....	....	....	21	10	231	115	78	75
8....	30	29	26	....	....	....	21	14	209	107	68	58
9....	30	28	26	....	....	....	12	13	209	110	65	78
10....	28	29	27	....	....	....	25	12	191	133	66	43
11....	28	28	27	....	....	....	26	12	221	129	84	56
12....	28	29	27	....	....	....	26	14	184	123	84	60
13....	26	29	27	....	....	....	25	15	184	132	101	50
14....	27	29	27	....	....	....	22	9	179	145	123	81
15....	28	28	27	....	....	....	19	16	162	166	125	69
16....	31	29	27	....	....	....	14	17	110	139	137	23
17....	33	28	27	....	....	....	16	23	129	166	124	25
18....	34	28	27	....	....	....	14	43	135	125	114	22
19....	29	29	27	....	....	....	18	58	96	135	110	16
20....	30	30	27	....	....	....	16	45	98	142	70	14
21....	33	28	27	....	....	....	18	59	127	138	69	15
22....	36	28	27	....	....	....	21	60	145	135	54	14
23....	31	29	27	....	....	....	13	56	143	125	56	23
24....	29	28	27	....	....	....	16	72	148	138	82	20
25....	32	27	27	....	....	....	16	97	106	152	91	20
26....	32	29	27	....	....	....	18	98	123	200	88	18
27....	29	29	27	....	....	....	16	101	200	228	76	23
28....	28	28	27	....	....	....	16	103	222	241	68	20
29....	29	28	27	....	....	....	20	133	242	238	73	26
30....	29	28	27	....	....	....	12	177	218	215	70	18
31....	28	....	27	....	....	....	....	178	....	235	71	....
Total	906	837	850	....	....	....	573	1541	5420	4727	3126	1203
Mean.	29.2	27.9	27.4	23	20	20	19.1	49.7	181	152	101	40.1
Max..	36	30	31	....	....	....	26	178	251	241	246	81
Min..	25	14	26	....	....	....	12	9	96	94	54	14
Acre-ft.	1800	1660	1680	1410	1110	1230	1140	3060	10800	9350	6210	2390

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Culebra River Near San Luis for Year Ending Sept. 30, 1934.
Drainage Area, 220 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	28	27	28	28	13	10	21	123	63	78	35
2....	17	32	25	28	27	14	13	26	53	88	76	28
3....	24	28	28	28	25	16	17	34	88	57	78	33
4....	35	28	28	28	12	13	15	37	103	13	71	26
5....	46	28	27	28	27	15	17	29	112	69	68	25
6....	34	27	26	23	26	20	17	34	118	108	62	26
7....	35	26	27	9	27	15	15	65	117	128	57	22
8....	32	30	25	30	23	19	11	75	119	121	65	23
9....	31	30	25	21	28	18	21	93	117	129	55	16
10....	30	31	26	22	26	18	19	121	108	128	45	9
11....	30	28	26	29	11	11	21	133	134	121	58	8
12....	30	28	26	28	23	15	23	127	160	119	54	7
13....	28	28	28	28	26	14	23	88	156	110	48	6
14....	28	25	28	28	26	21	21	130	151	117	40	5
15....	28	25	27	28	28	22	11	135	145	103	33	5
16....	26	30	25	27	28	23	11	138	143	112	41	5
17....	25	30	25	26	25	21	12	97	110	129	33	12
18....	25	28	25	27	12	10	18	151	125	121	25	12
19....	26	28	26	27	12	11	11	158	124	122	17	15
20....	25	28	25	23	26	19	20	150	112	108	25	22
21....	23	26	27	10	23	19	19	158	97	77	28	16
22....	26	27	27	26	12	16	11	159	87	66	36	16
23....	26	28	21	25	26	25	11	151	76	75	30	25
24....	26	28	10	26	24	25	11	166	70	62	52	31
25....	23	27	11	26	10	25	21	155	71	54	42	26
26....	25	27	16	27	15	25	32	156	73	35	27	27
27....	25	28	26	25	19	25	39	127	47	121	28	28
28....	23	26	28	11	15	25	30	123	46	117	34	26
29....	25	27	28	26	....	21	12	132	67	126	39	27
30....	25	28	27	26	....	22	25	140	70	61	47	17
31....	23	....	27	26	....	20	....	120	....	80	36	....
Total	841	838	773	770	615	576	537	3429	3122	2940	1428	579
Mean.	27.1	27.9	24.9	24.8	22.0	18.6	17.9	111	104	94.8	46.1	19.3
Max..	46	32	28	30	28	25	39	166	160	129	78	35
Min...	16	25	10	9	10	10	10	21	46	13	17	5
Acre-ft.	1670	1660	1530	1520	1220	1140	1070	6820	6190	5830	2830	1150

Discharge of La Garita Creek Near La Garita for Year Ending Sept. 30, 1933.
Drainage Area, 61 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	....	....	....	....	....	....	6	22	15	16	6
2....	10	....	....	....	....	....	....	9	25	14	12	6
3....	10	....	....	....	....	....	....	9	18	14	10	6
4....	10	....	....	....	....	....	....	7	18	25	12	6
5....	10	....	....	....	....	....	....	7	18	26	16	6
6....	10	....	....	....	....	....	....	10	16	19	19	6
7....	10	....	....	....	....	....	....	7	16	25	32	6
8....	10	....	....	....	....	....	....	8	12	27	15	6
9....	10	....	....	....	....	....	....	8	12	25	14	6
10....	10	....	....	....	....	....	....	7	15	22	13	13
11....	10	....	....	....	....	....	....	7	14	32	11	5
12....	10	....	....	....	....	....	....	6	13	24	11	5
13....	10	....	....	....	....	....	....	6	16	19	10	5
14....	10	....	....	....	....	....	....	5	15	16	11	5
15....	10	....	....	....	....	....	....	5	14	15	12	5
16....	10	....	....	....	....	....	....	8	14	14	12	5
17....	10	....	....	....	....	....	6	17	15	14	12	5
18....	10	....	....	....	....	....	7	18	21	12	10	5
19....	10	....	....	....	....	....	8	20	22	11	16	5
20....	10	....	....	....	....	....	7	22	28	11	14	5
21....	13	....	....	....	....	....	5	26	24	19	12	5
22....	12	....	....	....	....	....	6	27	20	12	10	5
23....	12	....	....	....	....	....	6	18	22	10	9	5
24....	14	....	....	....	....	....	6	22	21	10	8	5
25....	15	....	....	....	....	....	6	21	21	10	7	5
26....	....	....	....	....	....	....	6	18	18	10	8	5
27....	....	....	....	....	....	....	6	23	18	10	8	5
28....	....	....	....	....	....	....	8	22	18	10	5	5
29....	....	....	....	....	....	....	8	23	16	10	5	5
30....	....	....	....	....	....	....	8	23	16	10	6	5
31....	....	....	....	....	....	....	....	26	....	11	....	....
Total	....	....	....	....	....	....	....	441	538	502	362	167
Mean.	10.6	....	....	....	....	....	6.6	14.2	17.9	16.2	11.7	5.57
Max..	....	....	....	....	....	....	....	27	28	32	32	13
Min...	....	....	....	....	....	....	....	5	12	10	5	5
Acre-ft.	652	....	....	....	....	....	393	873	1070	996	719	331

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Garita Creek Near La Garita for Year Ending Sept. 30, 1934.
Drainage Area, 61 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5	5	....	....	....	....	6	11	7	3	4	3
2....	5	5	....	....	....	....	6	11	6	3	4	3
3....	5	....	....	....	....	....	6	10	6	3	4	3
4....	7	....	....	....	....	....	6	9	6	3	4	3
5....	6	....	....	....	....	....	6	11	6	3	4	3
6....	6	....	....	....	....	....	6	10	6	3	4	3
7....	6	....	....	....	....	....	6	10	6	3	4	3
8....	6	....	....	....	....	....	7	9	6	3	4	3
9....	5	....	....	....	....	....	8	9	6	4	5	3
10....	5	....	....	....	....	....	10	9	5	5	7	3
11....	5	....	....	....	....	....	15	9	5	5	6	3
12....	5	....	....	....	....	....	20	9	4	4	6	3
13....	4	....	....	....	....	....	22	9	3	4	6	3
14....	5	....	....	....	....	....	16	9	3	4	6	3
15....	5	....	....	....	....	....	17	8	3	3	14	3
16....	4	....	....	....	....	....	14	8	4	3	5	3
17....	4	....	....	....	....	....	15	7	4	4	6	3
18....	5	....	....	....	....	....	10	8	4	4	6	3
19....	5	....	....	....	....	....	14	9	3	3	6	3
20....	4	....	....	....	....	....	13	8	3	3	6	3
21....	4	....	....	....	....	....	16	8	3	6	5	4
22....	4	....	....	....	....	....	15	9	3	4	4	4
23....	4	....	....	....	....	....	13	9	3	5	4	4
24....	5	....	....	....	....	....	13	9	4	4	3	4
25....	5	....	....	....	....	....	16	9	4	6	4	4
26....	6	....	....	....	....	....	12	9	4	8	3	4
27....	5	....	....	....	....	....	11	9	3	7	3	4
28....	5	....	....	....	....	....	11	9	3	4	3	4
29....	5	....	....	....	....	....	11	9	3	3	3	4
30....	5	....	....	....	....	....	10	9	3	3	3	4
31....	5	....	....	....	....	....	....	9	....	6	3	....
Total	155	....	....	....	....	....	351	281	129	126	148	100
Mean.	5.0	....	....	....	....	....	11.7	9.1	4.3	4.1	4.8	3.3
Max...	7	....	....	....	....	....	22	11	7	8	14	4
Min....	4	....	....	....	....	....	6	7	3	3	3	3
Acre-ft.	307	....	....	....	....	....	696	560	256	252	295	196

Discharge of Carnero Creek Near La Garita for Year Ending Sept. 30, 1933.
Drainage Area, 117 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2	....	....	....	....	....	7	7	12	10	7	7
2....	2	....	....	....	....	....	7	7	12	7	9	7
3....	2	....	....	....	....	....	7	7	12	8	7	5
4....	2	....	....	....	....	....	7	10	12	8	7	5
5....	2	....	....	....	....	....	9	10	12	8	9	5
6....	2	....	....	....	....	....	5	10	9	17	18	5
7....	2	....	....	....	....	....	7	7	9	17	27	5
8....	2	....	....	....	....	....	7	7	7	21	53	5
9....	2	....	....	....	....	....	7	7	7	21	19	5
10....	2	....	....	....	....	....	7	10	7	13	15	20
11....	2	....	....	....	....	....	7	10	5	13	9	24
12....	2	....	....	....	....	....	7	10	7	13	9	16
13....	2	....	....	....	....	....	7	8	7	8	9	16
14....	2	....	....	....	....	....	7	6	7	8	9	13
15....	2	....	....	....	....	....	7	6	7	6	9	13
16....	2	....	....	....	....	....	7	8	7	6	9	13
17....	2	....	....	....	....	....	7	8	7	6	9	10
18....	2	....	....	....	....	....	7	10	7	6	9	7
19....	2	....	....	....	....	....	9	13	15	6	9	7
20....	2	....	....	....	....	....	7	13	15	6	9	7
21....	2	....	....	....	....	....	7	17	15	6	7	7
22....	2	....	....	....	....	....	7	17	12	6	7	7
23....	2	....	....	....	....	....	7	13	20	4	7	6
24....	2	....	....	....	....	....	5	13	20	4	7	6
25....	2	....	....	....	....	....	5	13	16	4	7	5
26....	2	....	....	....	....	....	7	13	16	5	7	5
27....	2	....	....	....	....	....	10	13	13	5	7	5
28....	2	....	....	....	....	....	13	13	10	5	10	5
29....	2	....	....	....	....	....	13	13	10	5	5	5
30....	2	....	....	....	....	....	10	13	10	3	5	5
31....	2	....	....	....	....	....	....	12	....	3	7	....
Total	62	....	....	....	....	....	226	324	325	258	337	251
Mean.	2.00	....	....	....	....	....	7.53	10.5	10.8	8.32	10.9	8.37
Max...	2	....	....	....	....	....	13	17	20	21	63	24
Min....	2	....	....	....	....	....	5	6	5	3	5	5
Acre-ft.	123	....	....	....	....	....	448	646	643	512	670	498

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Carnero Creek Near La Garita for Year Ending Sept. 30, 1934.
Drainage Area, 117 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	....	....	....	....	....	6	12	7	5	1	3
2....	12	....	....	....	....	....	6	12	5	5	1	3
3....	12	....	....	....	....	....	6	12	5	5	1	3
4....	12	....	....	....	....	....	6	12	5	5	1	2
5....	12	....	....	....	....	....	6	12	5	2	1	2
6....	9	....	....	....	....	....	6	12	5	2	1	2
7....	9	....	....	....	....	....	6	15	5	2	1	2
8....	9	....	....	....	....	....	6	15	5	1	1	2
9....	9	....	....	....	....	....	9	15	5	1	2	2
10....	9	....	....	....	....	....	9	15	4	1	5	2
11....	7	....	....	....	....	....	9	15	4	2	4	2
12....	7	....	....	....	....	....	9	15	4	2	4	2
13....	7	....	....	....	....	....	9	15	4	1	3	2
14....	7	....	....	....	....	....	9	12	2	1	3	2
15....	7	....	....	....	....	....	9	9	2	1	4	2
16....	5	....	....	....	....	....	9	9	2	1	4	2
17....	5	....	....	....	....	....	9	9	2	1	8	3
18....	5	....	....	....	....	....	9	9	2	1	8	3
19....	4	....	....	....	....	....	15	9	2	1	8	3
20....	4	....	....	....	....	....	15	9	2	1	6	3
21....	4	....	....	....	....	....	15	9	2	1	4	3
22....	2	....	....	....	....	....	15	9	2	1	4	3
23....	2	....	....	....	....	....	15	7	2	4	4	3
24....	2	....	....	....	....	....	15	7	2	6	4	3
25....	2	....	....	....	....	....	15	7	2	6	4	3
26....	4	....	....	....	....	....	12	7	2	4	4	3
27....	4	....	....	....	....	....	12	7	2	3	4	3
28....	4	....	....	....	....	....	12	7	2	3	3	3
29....	4	....	....	....	....	....	12	7	2	2	3	3
30....	4	....	....	....	....	....	12	7	4	2	3	3
31....	4	....	....	....	....	....	....	7	....	2	2	....
Total	199	....	....	....	....	....	303	324	99	75	106	77
Mean...	6.4	....	....	....	....	....	10.1	10.5	3.3	2.4	3.4	2.6
Max...	12	....	....	....	....	....	15	15	7	6	8	3
Min...	2	....	....	....	....	....	6	7	2	1	1	2
Acre-ft.	394	....	....	....	....	....	601	646	196	148	209	155

Discharge of Saguache Creek Near Saguache for Year Ending Sept. 30, 1933.
Drainage Area, 595 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	40	40	....	....	....	....	45	25	220	63	112	52
2....	40	40	....	....	....	....	45	25	239	59	106	49
3....	40	36	....	....	....	....	50	25	181	67	87	42
4....	40	36	....	....	....	....	50	25	148	84	76	41
5....	38	40	....	....	....	....	50	25	145	86	102	36
6....	37	45	....	....	....	....	50	25	137	94	153	34
7....	39	43	....	....	....	....	50	25	134	116	216	30
8....	40	40	....	....	....	....	50	25	120	122	132	24
9....	40	43	....	....	....	....	45	25	98	84	124	36
10....	41	43	....	....	....	....	45	25	102	88	113	55
11....	41	43	....	....	....	....	45	25	108	101	93	59
12....	40	....	....	....	....	....	40	25	113	84	83	76
13....	40	....	....	....	....	....	40	25	120	76	72	62
14....	40	....	....	....	....	....	40	25	120	63	60	62
15....	38	....	....	....	....	....	40	30	119	58	58	52
16....	37	....	....	....	....	....	30	38	125	56	50	38
17....	36	....	....	....	....	....	30	59	148	77	44	30
18....	36	....	....	....	....	....	30	94	151	84	42	26
19....	39	....	....	....	....	....	30	125	216	65	73	25
20....	42	....	....	....	....	....	30	148	256	62	70	24
21....	43	....	....	....	....	....	25	184	188	73	46	24
22....	44	42	....	....	....	....	25	179	158	74	38	25
23....	40	....	....	....	....	....	25	100	161	62	34	24
24....	40	....	....	....	....	....	25	94	151	56	31	22
25....	46	....	....	....	....	....	25	101	119	55	30	19
26....	45	....	....	....	....	....	25	120	90	62	30	18
27....	44	....	....	....	....	....	25	154	84	60	46	17
28....	41	....	....	....	....	....	25	171	83	49	66	16
29....	38	....	....	....	....	....	25	179	77	33	56	14
30....	36	....	....	....	....	....	25	195	72	29	46	14
31....	39	....	....	....	....	....	....	221	....	54	49	....
Total	1240	....	....	....	....	....	1085	2542	4183	2196	2338	1046
Mean...	40.0	41.5	....	....	....	....	36.2	82.0	139	70.8	75.4	34.9
Max...	46	....	....	....	....	....	50	221	256	122	216	76
Min...	36	....	....	....	....	....	25	25	72	29	30	14
Acre-ft.	2460	2470	....	....	....	....	2150	5040	8270	4350	4640	2080

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Saguache Creek Near Saguache for Year Ending Sept. 30, 1934.
Drainage Area, 595 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	14	36	....	....	....	....	40	56	56	19	21	34
2....	14	36	....	....	....	....	40	59	44	19	19	39
3....	18	35	....	....	....	....	40	55	46	19	20	30
4....	36	39	....	....	....	....	40	54	46	20	21	26
5....	59	....	....	....	....	....	40	57	41	22	26	25
6....	52	....	....	....	....	....	40	65	37	20	38	26
7....	46	....	....	....	....	....	40	68	34	19	34	27
8....	40	....	....	....	....	....	40	73	33	19	29	31
9....	40	....	....	....	....	....	43	74	29	20	41	47
10....	34	....	....	....	....	....	44	74	28	21	49	41
11....	34	....	....	....	....	....	49	72	27	21	41	35
12....	30	....	....	....	....	....	57	70	26	21	37	31
13....	30	....	....	....	....	....	61	66	24	20	35	31
14....	30	....	....	....	....	....	56	66	24	18	41	29
15....	30	....	....	....	....	....	54	61	23	16	44	27
16....	30	....	....	....	....	....	54	57	24	18	37	27
17....	30	....	....	....	....	....	54	56	26	19	43	26
18....	30	....	....	....	....	....	49	56	26	24	46	25
19....	30	....	....	....	....	....	49	56	23	19	54	24
20....	30	....	....	....	....	....	54	57	20	18	63	26
21....	30	....	....	....	....	....	59	56	19	17	48	29
22....	35	....	....	....	....	....	64	57	19	25	43	29
23....	35	....	....	....	....	....	64	58	19	24	40	30
24....	35	....	....	....	....	....	68	53	25	34	37	56
25....	34	....	....	....	....	....	73	53	26	55	33	46
26....	34	....	....	....	....	....	69	54	27	38	31	29
27....	34	....	....	....	....	....	62	59	20	30	30	32
28....	34	....	....	....	....	....	61	61	19	24	29	30
29....	34	....	....	....	....	....	56	60	18	20	26	29
30....	35	....	....	....	....	....	56	64	18	19	25	29
31....	35	....	....	....	....	....	....	71	....	19	33	....
Total	1032	....	....	....	....	....	1576	1898	847	697	1114	946
Mean.	33.3	....	....	....	....	....	52.5	61.2	28.2	22.5	35.9	31.5
Max...	59	....	....	....	....	....	73	74	56	55	63	56
Min...	14	....	....	....	....	....	40	53	18	16	19	24
Acre-ft.	2050	....	....	....	....	....	3120	3760	1680	1380	2210	1870

Unless otherwise noted, all discharges are in cubic feet per second.

COLORADO RIVER DRAINAGE

Cooperation—All stations maintained in cooperation with the United States Geological Survey.

¶In Cooperation with State of Utah.

†In Cooperation with City of Denver.

*In Cooperation with Uncompahgre Valley Water Users.

‡In Cooperation with Redlands Water & Power Co.

§In Cooperation with City of Grand Junction.

COLORADO RIVER NEAR GRAND LAKE

Location—In Sec. 13, T. 3 N., R. 76 W., three miles south of Grand Lake. Station about 1,500 feet below main highway bridge.

Records Available—August, 1904, to September 1909; October, 1910, to September 30, 1918; May 11 to September 30, 1934.

Gage—Automatic recording gage (staff gage prior to June 14, 1934, 1,000 feet upstream; records comparable).

Accuracy—Records considered good.

Remarks—Diversions for irrigation above station.

COLORADO RIVER NEAR GRANBY

Location—In Sec. 22, T. 2 N., R. 76 W., 4 miles northeast of Granby and 1½ miles above the mouth of Willow Creek.

Records Available—June, 1908, to September, 1911 (same location but different datum), May 12, to September 30, 1934.

Gage—Automatic recording gage (May 12, to June 10, 1934, temporary chain gage 460 feet upstream).

Accuracy—Records considered excellent.

Remarks—Diversions for irrigation above station.

COLORADO RIVER NEAR HOT SULPHUR SPRINGS

Location—At Thompson's Ranch one mile above the town of Hot Sulphur Springs, in Sec. 1, T. 1 N., R. 78 W. Beaver Creek enters three miles below.

Records Available—September 19, 1930, to September 30, 1934. Station maintained at town of Hot Sulphur Springs, from July 22, 1904, to September 30, 1909; September 23, 1910, to September 30, 1924; October 1, 1925, to September 19, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

COLORADO RIVER AT GLENWOOD SPRINGS

Location—In Glenwood Springs opposite D. & R. G. W. R. R. Depot, and $\frac{1}{2}$ mile above Roaring Fork.

Records Available—May 12, 1899, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

COLORADO RIVER NEAR CAMEO

Location—In Sec. 6, T. 10 W., R. 97 W., 6.7 miles northeast of Cameo and 3.4 miles above mouth of Plateau Creek.

Records Available—October, 1933, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

COLORADO RIVER NEAR PALISADE

Location—At highway bridge in Sec. 2, T. 11 S., R. 98 W., two miles above Palisade.

Records Available—April 9, 1902, to September 30, 1933.

Gage—Chain gage.

Accuracy—Records considered good.

§COLORADO RIVER NEAR CISCO, UTAH

Location—Between Secs. 8 and 17, T. 23 S., R. 24 E., Salt Lake Meridian, fifteen miles south of Cisco. Dolores River enters one mile above station.

Records Available—November 10, 1914, to September 30, 1917; October 1, 1922, to September 30, 1934. From October 1, 1913, to November 10, 1914, a station was maintained at Moab, thirty-one miles below this station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

COLORADO RIVER AT LEES FERRY, ARIZONA

Location—At Lees Ferry, Arizona, about one-half mile below ferry and one-half mile above mouth of Paria River.

Records Available—June 13, 1921, to September 30, 1934. Data for 1934 not received in time for publication.

Gage—Automatic recording gage.

Accuracy—Records considered good.

†FRASER RIVER ABOVE WEST PORTAL

Location—In N. E. $\frac{1}{4}$ Sec. 15, T. 2 S., R. 75 W., just below the mouth of Jim Creek and one mile above West Portal.

Records Available—August 2, 1934, to September 30, 1934 (Records not published prior to Sept. 30, 1934.)

Gage—Continuous automatic recording gage.

Accuracy—Records considered good.

FRASER RIVER NEAR WEST PORTAL (Arrow)

Location—In Sec. 4, T. 2 S., R. 75 W., three-quarters of a mile down stream from D. & S. L. R. R. trestle and 150 yards east of railroad and highway crossing, one and one-half miles northwest of West Portal.

Records Available—September 23, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

†VASQUEZ CREEK NEAR WEST PORTAL

Location—In N. W. $\frac{1}{4}$ Sec. 33, T. 1 S., R. 75 W., at highway bridge two and one-half miles northwest of West Portal. No tributary enters between station and mouth one-fourth mile downstream.

Records Available—August 2, 1934, to September 30, 1934. (Records not published prior to Sept. 30, 1934.)

Gage—Continuous automatic recording gage.

Accuracy—Records considered good.

†ST. LOUIS CREEK NEAR FRASER

Location—In Sec. 34, T. 1 S., R. 76 W., one-third mile below junction of the east and west branches and four and one-half miles southwest of Fraser.

Records Available—Aug. 2, 1934, to September 30, 1934. (Records not published prior to Sept. 30, 1934.)

Gage—Continuous automatic recording gage.

Accuracy—Records considered good.

†RANCH CREEK AT FRASER

Location—In NE $\frac{1}{4}$ Sec. 22, T. 1 S., R. 75 W., at Arkall Ranch, three miles east of Fraser.

Records Available—July 14, 1934, to September 30, 1934. (Records not published prior to September 30, 1934.)

Gage—Continuous automatic recording gage.

Accuracy—Records considered good.

†RANCH CREEK NEAR TABERNASH

Location—In Sec. 6, T. 1 S., R. 75 W., one-fourth mile above mouth of Hurd Creek and one and one-half miles east of Tabernash.

Records Available—August 2, 1934, to September 30, 1934. (Records not published prior to September 30, 1934.)

Gage—Automatic continuous recording gage.

Accuracy—Records considered good.

WILLIAMS FORK RIVER AT STEELMAN CREEK

Location—In Sec. 20, T. 3 S., R. 76 W., just below mouth of Steelman Creek.

Records Available—June 23, 1933, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WILLIAMS FORK RIVER NEAR LEAL

Location—In Sec. 31, T. 2 S., R. 77 W., 2 miles north of Leal and just below mouth of Kinney Creek.

Records Available—June 19, 1933, to Sept. 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered excellent except during part of winter.

WILLIAMS FORK RIVER NEAR PARSHALL

Location—At highway bridge in Sec. 1, T. 1 S., R. 79 W., four miles south of Parshall and two and one-half miles above mouth of Battle Creek. Prior to 1933 station maintained one mile down stream; records comparable.

Records Available—July, 1904, to September, 1924, June 19, 1933, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

†BLUE RIVER AT DILLON

Location—At Cemetery bridge in Sec. 18, T. 5 S., R. 77 W., a short distance above the mouth of Snake River.

Records Available—October 15, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

†SNAKE RIVER AT DILLON

Location—At highway bridge 100 yards above mouth in Sec. 18, T. 5 S., R. 77 W.

Records Available—October 15, 1910, to September 30, 1919; December, 1929, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

†TEN MILE CREEK AT DILLON

Location—At highway bridge in Dillon in Sec. 18, T. 5 S., R. 77 W., at highway bridge 300 yards above mouth.

Records Available—October 15, 1910, to September 30, 1919; April 13, 1930, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ROARING FORK RIVER AT ASPEN

Location—In Sec. 7, T. 10 S., R. 84 W., at the bridge near the old power plant in Aspen, above Castle, Hunter and Maroon Creeks. Station re-established at old location in April, 1932.

Records Available—January 1, 1911, to September 30, 1921, and from April 24, 1932, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ROARING FORK RIVER AT GLENWOOD SPRINGS

Location—In Sec. 9, T. 6 S., R. 89 W., one-half mile above mouth.

Records Available—April 6, 1906, to September 30, 1909; September 21, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

PLATEAU CREEK NEAR COLLBRAN

Location—In Sec. 23, T. 9 S., R. 94 W., on private bridge about seven miles east of Collbran.

Records Available—August 20, 1921, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1921-34): 4,500 second-feet, May 28, 1922 (gage height, 7.20 feet.)

BUZZARD CREEK NEAR COLLBRAN

Location—In Sec. 14, T. 9 S., R. 94 W., on highway bridge seven miles east of Collbran.

Records Available—August 18, 1921, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1921-34): 619 second-feet May 15, 1932 (gage height, 6.30 feet).

TAYLOR RIVER AT TAYLOR PARK

Location—In Sec. 7, T. 14 S., R. 82 W., at Bright's Ranch bridge.

Records Available—June 1, 1929, to August 12, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

*TAYLOR RIVER AT ALMONT

Location—At highway bridge at Almont in Sec. 22, T. 51 N., R. 1 E., N. M. P. M. and 800 feet above junction with East River.

Records Available—July 27, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

TEXAS CREEK AT TAYLOR PARK

Location—In Sec. 8, T. 14 S., R. 82 W., at highway bridge on Dorchester Road.

Records Available—June 1, 1929, to August 12, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WILLOW CREEK AT TAYLOR PARK

Location—At highway bridge on Tin Cup road near Ranger station in Sec. 22, T. 14 S., R. 82 W.

Records Available—June 1, 1929, to August 12, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

EAST RIVER AT ALMONT

Location—In Sec. 22, T. 51 N., R. 1 E., N. M. P. M., 300 feet above highway bridge at Almont and about 700 feet above mouth.

Records Available—September 19, 1934, to September 30, 1934. (Records unpublished prior to September 30, 1934.)

Gage—Automatic recording gage.

Accuracy—Records considered good.

HENSON CREEK AT LAKE CITY

Location—In Sec. 33, T. 44 N., R. 4 W., one and two-tenths miles from Lake City Post Office and 125 feet below station maintained in 1929 and 1930.

Records Available—December, 1928, to July, 1930, and October 1, 1931, to September 30, 1934. From 1918 to 1919 station maintained one mile down stream.

Gage—Automatic recording gage.

Accuracy—Records considered good.

LAKE FORK AT LAKE CITY

Location—In Sec. 34, T. 44 N., R. 4 W., in Lake City south of Wade's Gulch and 600 feet above station previously maintained. Henson Creek enters one-half mile down stream.

Records Available—April, 1918, to September, 1924, December, 1928, to July, 1930, and October 1, 1931, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

NORTH FORK OF GUNNISON RIVER NEAR SOMERSET

Location—In Sec. 10, T. 13 S., R. 90 W., two miles east of Somerset.

Records Available—March 30, 1934, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

‡GUNNISON RIVER NEAR GRAND JUNCTION

Location—In Sec. 35, T. 1 S., R. 1 W., on ditch bank one mile below Redlands Water and Power Diversion dam, two miles above mouth and four and one-half miles southwest of Grand Junction.

Records Available—May 2, 1897, to September 30, 1899; April, 1917, to September 30, 1930, and from January, 1934, to September 30, 1934. Flow includes Redlands Power Canal.

Gage—Automatic recording gage.

Accuracy—Records considered excellent.

SURFACE CREEK AT CEDAREEDGE

Location—In Sec. 20, T. 13 S., R. 94 W., at Cedaredge on 32-foot weir.

Records Available—May 16, 1917, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

*UNCOMPAHGRE RIVER NEAR COLONA

Location—In Sec. 32, T. 47 N., R. 8 W., at highway bridge three miles south of Colona and short distance below Billy Creek.

Records Available—April 6, 1917, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

#KANNAH CREEK NEAR WHITEWATER

Location—In Sec. 34, T. 12 S., R. 97 W., one-fourth mile below intake for water supply of Grand Junction and 17 miles east of Whitewater.

Records Available—October 15, 1917, to September 30, 1921; August 17, 1922, to September 30, 1934. Flow of pipe line not included in estimate since September 30, 1930.

Gage—Automatic recording gage.

Accuracy—Records considered good.

DOLORES RIVER AT DOLORES

Location—200 feet above highway bridge in Sec. 9, T. 37 S., R. 15 W., in the town of Dolores and one-fourth mile above mouth of Lost Canon Creek.

Records Available—June 24, 1895, to October 31, 1903; November 1, 1910, to November 30, 1912, station below mouth of Lost Canon Creek; April 11, 1922, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum Discharge (1895-1903, 1910-12, 1922-34): 10,000 second feet Oct. 5, 1911 (gage height 10.2 feet).

SAN MIGUEL RIVER NEAR PLACERVILLE

Location—In Sec. 34, T. 44 N., R. 11 W., at Estep Ranch bridge.

Records Available—September 13, 1910, to November 30, 1912; April 23, 1930, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1910-12, 1930-34): 1,810 second feet June 12-14, 1930 (gage height 4.00 feet).

PARIA RIVER AT LEES FERRY

Location—One mile above the mouth.

Records Available—November 22, 1924, to September 30, 1934 (data for 1934 not received in time to publish).

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Discharge of Colorado River Near Grand Lake for Year Ending Sept. 30, 1934.
Drainage Area, 101 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1								156	18	22		16
2								127	17	23		16
3								110	14	24		18
4								110	14	20		17
5								102	25	25		16
6								94	25	27		17
7								102	17	27		17
8								88	12	25		20
9								86	9.2	25		32
10								79	6.4	30		31
11								319	72	4.8	34	29
12								270	68	3.7	28	27
13								210	62	2.9	26	25
14								145	59	2.4	24	24
15								136	58	2.1	24	22
16								150	60	2.3	21	21
17								181	58	2.2	20	20
18								181	55	1.7	21	20
19								210	50	1.7	24	20
20								210	47	1.8	26	25
21								194	42	2.0	26	31
22								181	36	2.3	27	27
23								145	33	12	23	24
24								136	33	12	21	22
25								145	49	16	20	22
26								136	38	14	19	26
27								127	33	12	18	25
28								127	29	8.8	19	25
29								156	22	11	19	26
30								168	19	18	20	24
31								194		16	18	
Total									1977	307.3	726	685
Mean									65.9	9.91	23.4	22.8
Max.									156	25	34	32
Min.									19	1.7	18	16
Acre-ft.									3920	610	1440	1360

Discharge of Colorado River Near Granby for Year Ending Sept. 30, 1934.
Drainage Area, 322 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1								1070	174	96		60
2								888	163	101		60
3								708	149	96		60
4								628	163	90		58
5								628	199	96		56
6								622	199	106		54
7								622	174	98		54
8								518	152	96		62
9								533	139	98		80
10								528	126	116		80
11								451	109	122		78
12								1240	431	93		73
13								1130	417	87		69
14								856	403	78		67
15								702	389	69		64
16								812	380	62		60
17								977	354	58		56
18								1000	327	56		54
19								1130	301	54		54
20								1150	292	54		71
21								1130	276	56		78
22								1140	268	60		73
23								1100	241	69		69
24								850	237	80		71
25								818	276	82		75
26								818	276	96		80
27								756	244	98		80
28								882	222	93		78
29								882	203	82		67
30								977	184	90		75
31								1140		90		
Total									12917	3254	2876	2024
Mean									431	105	92.8	67.5
Max.									1070	199	122	80
Min.									184	54	62	54
Acre-ft.									25620	6450	5700	4010

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River Near Hot Sulphur Springs for Year Ending Sept. 30, 1933.
Drainage Area, 782 Square Miles. Altitude, 7,680 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	153	159	159	68	73	91	260	431	3900	2040	465	212
2....	153	153	141	73	73	86	296	468	4370	1910	500	196
3....	153	162	141	71	71	96	335	465	3980	1920	514	188
4....	153	153	129	71	75	94	690	479	3890	2180	465	177
5....	147	123	126	71	71	94	365	584	4500	1970	418	174
6....	144	153	120	77	77	99	203	619	4690	1880	394	177
7....	144	153	120	71	73	99	181	479	4690	2040	382	174
8....	144	129	100	71	82	94	203	451	3970	1930	358	177
9....	147	168	90	68	79	94	203	382	3580	1720	358	180
10....	163	156	90	66	79	94	212	382	3740	1530	352	310
11....	165	132	73	66	86	96	296	412	4540	1350	328	334
12....	165	153	73	73	77	102	139	358	5350	1270	295	418
13....	168	168	62	71	75	102	177	305	5350	1150	275	346
14....	168	168	38	68	77	107	115	290	5140	1030	260	370
15....	168	150	84	66	79	105	126	316	4770	952	256	352
16....	165	147	132	66	75	91	166	370	4500	816	248	305
17....	159	168	190	64	77	105	194	500	4500	768	240	270
18....	159	159	91	59	75	99	296	898	4690	752	232	252
19....	165	159	64	59	79	107	324	1280	4560	712	270	248
20....	138	147	79	60	77	94	216	1520	4610	656	275	240
21....	162	147	68	59	89	94	173	1830	4590	612	252	228
22....	184	147	86	62	84	94	194	2170	4320	591	240	228
23....	171	126	73	64	79	91	146	2130	3610	577	232	224
24....	177	129	77	66	89	89	136	1920	3120	528	228	224
25....	144	129	71	62	79	91	181	1690	2950	479	228	204
26....	168	132	57	66	84	89	265	1720	2780	472	224	224
27....	174	138	60	71	82	102	347	2030	2580	472	236	260
28....	171	147	62	71	91	115	488	2310	2430	486	285	248
29....	168	147	57	68	...	154	559	2560	2420	388	265	244
30....	174	138	60	73	...	226	437	2950	2230	376	240	240
31....	138	...	60	71	...	230	...	3500	...	418	224	...
Total	4957	4440	2833	2092	2207	3324	7923	35799	120350	33975	9539	7424
Mean...	160	148	91.4	67.5	78.8	107	264	1160	4010	1100	308	247
Max....	184	168	190	77	91	230	690	3500	5350	2180	514	418
Min....	138	126	38	59	71	86	115	290	2230	376	224	174
Acre-ft.	9840	8810	5620	4150	4380	6580	15700	71300	239000	67600	18900	14700

Discharge of Colorado River Near Hot Sulphur Springs for Year Ending Sept. 30, 1934.
Drainage Area, 782 Square Miles. Altitude, 7,680 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	213	146	130	...	...	105	210	872	1940	290	165	132
2....	210	144	132	...	...	105	224	915	1620	272	172	127
3....	277	149	132	...	...	105	210	1150	1400	247	165	135
4....	232	159	120	...	...	105	196	1160	1240	294	162	127
5....	199	141	110	...	...	105	182	1150	1180	374	172	119
6....	216	138	105	...	...	95	196	1280	1170	337	196	116
7....	243	152	105	...	...	95	216	1670	1220	290	175	114
8....	251	144	105	...	...	95	247	1970	1070	255	172	155
9....	240	162	105	...	...	95	277	2040	942	240	185	165
10....	210	144	105	...	...	95	318	2150	880	236	210	175
11....	199	144	100	...	...	110	328	2010	872	232	206	162
12....	196	144	100	...	...	110	401	2090	820	213	196	146
13....	196	144	100	...	...	110	447	1900	762	202	188	138
14....	192	141	100	...	...	110	430	1650	714	196	182	135
15....	185	135	97	...	...	110	453	1480	699	192	175	130
16....	182	132	95	...	...	120	406	1480	683	185	168	127
17....	178	144	95	...	...	120	352	1690	668	182	162	121
18....	178	135	95	...	...	120	363	1780	600	178	165	119
19....	175	130	95	...	...	120	395	1880	572	165	172	114
20....	178	132	95	...	...	120	401	1960	544	162	199	141
21....	178	132	100	...	...	150	484	2040	544	152	202	185
22....	178	141	100	...	...	150	544	1920	478	152	188	159
23....	175	144	100	...	...	150	593	1760	459	175	175	149
24....	178	141	100	...	...	150	699	1610	441	199	165	141
25....	162	130	100	...	...	150	820	1590	491	188	159	141
26....	146	121	105	...	...	199	915	1570	447	199	155	155
27....	146	135	105	...	...	196	820	1530	412	185	149	159
28....	149	146	105	...	97	213	796	1560	363	168	144	165
29....	149	135	105	...	...	228	787	1690	328	159	144	168
30....	146	138	105	...	...	232	820	1890	303	159	144	162
31....	141	...	105	78	...	263	...	2170	...	162	138	...
Total	5898	4223	3251	...	...	4231	13530	51607	23862	6640	5350	4232
Mean...	190	141	105	85	100	136	451	1665	795	214	173	143
Max....	277	162	132	...	...	263	915	2170	1940	374	210	185
Min....	141	121	...	...	...	...	182	872	303	152	138	114
Acre-ft.	11700	8380	6450	5230	5550	8390	26840	102400	47330	13170	10610	8490

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River at Glenwood Springs for Year Ending Sept. 30, 1933.
Drainage Area, 4,560 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	634	821	892	670	535	709	1090	2300	14800	6870	1780	1010
2....	884	956	854	661	614	723	1120	2080	17600	6120	2150	1050
3....	695	842	843	702	640	730	1150	2080	17200	5700	2150	1010
4....	856	1060	922	716	602	730	1250	2000	16400	5980	2080	1000
5....	737	744	802	751	621	723	1470	2000	17200	6120	1920	905
6....	758	758	720	688	621	730	1250	2220	18900	5700	1780	598
7....	730	772	649	688	595	730	1150	2380	19300	5560	1780	863
8....	709	912	596	695	508	723	1100	2150	17600	6570	1710	856
9....	654	793	646	723	508	730	1090	2000	15200	5980	1640	828
10....	772	926	771	614	530	723	1090	1850	15200	5040	1640	842
11....	905	863	871	723	547	723	972	1780	17200	4680	1570	948
12....	1060	800	552	681	614	709	870	1710	19300	4460	1500	1210
13....	1040	835	362	681	674	723	905	1640	20200	4250	1400	1540
14....	1000	825	370	647	608	716	828	1530	19300	3960	1340	1400
15....	1120	964	379	647	640	723	842	1540	18500	3600	1280	1480
16....	1020	723	588	660	621	751	807	1570	18100	3350	1200	1500
17....	980	1110	566	667	621	793	905	1850	17200	3120	1200	1400
18....	956	772	541	674	628	779	1060	2680	16400	2980	1200	1310
19....	996	1040	636	640	589	765	1170	3770	16800	2900	1210	1280
20....	995	751	610	660	589	730	1640	5430	16400	2750	1210	1230
21....	995	1100	644	667	628	723	1490	7180	15600	2600	1280	1130
22....	1000	751	643	634	634	730	1250	8780	14400	2520	1300	1210
23....	1000	814	635	674	628	716	1200	8780	13300	2370	1280	1180
24....	1010	863	625	688	628	730	1130	7660	11800	2220	1210	1140
25....	1010	640	648	640	577	660	1130	6720	10400	2070	1110	1130
26....	1020	640	668	654	589	933	1160	6420	10100	1920	1120	1120
27....	1020	793	694	602	647	758	1250	7500	9260	1850	1080	898
28....	1020	702	731	640	667	681	1780	9260	8300	1780	1130	923
29....	1030	751	715	654	....	821	2150	10400	7820	1710	1170	1030
30....	1040	730	700	614	....	1140	2520	11500	7500	1640	1190	1240
31....	1020	....	669	640	....	1130	....	13300	....	1710	1150	....
Total	28666	25061	20542	20695	16903	23685	36819	142060	457280	118080	44760	33571
Mean...	925	835	663	668	604	764	1230	4580	15200	3810	1440	1120
Max....	1120	1110	922	751	674	1140	2520	13300	20200	6870	2150	1540
Min....	634	640	362	602	508	660	807	1530	7500	1640	1080	828
Acre-ft.	56900	49700	40800	41100	33500	47000	73200	282000	904000	234000	88500	66600

Discharge of Colorado River at Glenwood Springs for Year Ending Sept. 30, 1934.
Drainage Area, 4,560 Square Miles. Altitude, 5,747 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1140	805	688	800	574	629	1010	3290	6660	1240	723	690
2....	1140	919	737	708	552	623	984	3400	5650	1180	871	606
3....	1130	860	745	751	584	658	936	3400	4850	1130	965	601
4....	1130	851	636	753	552	641	907	3580	4330	1100	774	697
5....	1120	838	704	678	606	635	821	3680	3860	1060	752	606
6....	1200	863	594	664	584	647	760	3920	3610	1110	752	629
7....	1170	323	554	640	652	652	710	4550	3560	1180	730	717
8....	1130	767	647	440	677	664	671	5760	3460	1160	704	730
9....	1150	774	698	460	618	623	782	6930	3240	1080	1110	730
10....	1170	828	748	542	618	618	838	7720	3020	936	1010	730
11....	1160	878	776	531	652	606	1080	7920	2900	946	1140	854
12....	1120	798	718	490	475	612	1180	7880	2820	917	1260	789
13....	925	819	671	443	629	460	1520	8010	2750	863	1180	745
14....	894	750	909	579	574	704	1600	7370	2630	804	1080	730
15....	902	789	776	590	612	789	1770	5920	2520	664	1010	710
16....	904	748	668	671	595	704	1880	5350	2420	647	1060	658
17....	846	706	560	584	647	926	1780	5480	2360	641	1060	647
18....	878	700	540	557	612	767	1580	5920	2270	641	1040	635
19....	887	827	526	579	590	804	1530	6180	2060	641	1010	601
20....	819	740	551	542	618	652	1650	6390	1920	635	946	601
21....	816	796	628	574	623	671	1850	6510	1820	946	965	690
22....	774	704	617	606	618	710	2200	6420	1650	789	1110	704
23....	806	764	602	595	635	1030	2560	5730	1610	782	1080	704
24....	780	799	717	671	647	730	2700	5220	1530	838	907	812
25....	756	837	681	671	647	898	2870	4970	1580	907	804	846
26....	798	793	731	498	647	629	3170	5040	1740	1190	690	752
27....	753	656	849	606	629	898	3290	4970	1640	1250	690	782
28....	818	743	742	652	623	730	3100	4920	1500	1190	767	782
29....	817	694	654	501	....	926	3050	5170	1390	946	926	782
30....	695	782	616	658	....	907	3160	5700	1310	710	760	846
31....	754	....	644	557	....	1060	....	6390	....	710	690	....
Total	29382	23661	20927	18591	17090	22603	51939	173690	82660	28833	28566	21406
Mean...	948	789	675	600	610	729	1731	5603	2755	930	921	714
Max....	1200	919	909	800	677	1060	3290	8010	6660	1250	1260	854
Min....	695	656	526	440	475	460	671	3290	1310	635	690	601
Acre-ft.	58280	46930	41510	36870	33900	44830	103000	344500	164000	57190	56660	42460

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River Near Cameo for Year Ending Sept. 30, 1934.
Drainage Area, . . . Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1690	1410	1380	1610	1320	1460	1840	5850	9660	2100	994	1140
2....	1520	1410	1380	1780	1320	1320	1840	5850	8840	2020	1270	1140
3....	1690	1510	1380	2020	1320	1320	1670	6180	8040	1920	1130	1050
4....	1830	1510	1200	1610	1320	1320	1670	6530	7290	1860	1240	970
5....	1690	1410	1380	1460	1290	1320	1840	6530	6580	1770	1210	994
6....	1690	1410	1200	1320	1320	1390	1840	7250	5900	1770	1200	1080
7....	1690	1410	1200	1460	1320	1460	1840	8790	6230	1750	1090	987
8....	1830	1310	1380	1320	1320	1390	1840	9610	5220	1750	1060	1120
9....	1830	1410	1380	1320	1320	1320	2120	12300	5220	1640	1060	1220
10....	1690	1410	1520	1320	1320	1320	2120	13700	4920	1550	2190	1270
11....	1830	1590	1380	1460	1390	1320	2320	14700	4640	1440	1890	1270
12....	1980	1530	1380	1460	1320	1320	2370	14300	4360	1410	1720	1250
13....	1980	1360	1520	1320	1320	1390	2650	13700	4080	1420	1590	1240
14....	1830	1530	1380	1460	1320	1390	2920	13200	4080	1410	1490	1220
15....	1690	1530	1200	1320	1390	1460	2740	13200	3780	1390	1460	1160
16....	1690	1360	1520	1320	1390	1460	2840	12400	3780	1300	1480	1160
17....	1520	1530	1380	1320	1460	1460	2630	10500	3530	893	1440	1090
18....	1520	1530	1380	1320	1390	1540	2670	10100	3300	1090	1460	1010
19....	1410	1530	1360	1460	1390	1610	3100	11500	3080	1070	1420	986
20....	1520	1360	1220	1320	1320	1610	3390	11900	2860	1060	1400	1010
21....	1410	1530	1360	1460	1390	1610	3860	11500	2880	1040	2220	1080
22....	1320	1530	1510	1460	1390	1610	3990	10500	2710	2400	1720	1220
23....	1410	1360	1640	1460	1460	1560	4540	10100	2470	1340	1440	1240
24....	1410	1530	1490	1320	1460	1500	5140	9660	2470	1290	1350	2080
25....	1410	1480	1350	1320	1390	1500	5800	9660	2300	1370	1270	2020
26....	1410	1250	1490	1320	1460	1500	6140	8840	2300	1560	1210	1820
27....	1520	1200	1490	1320	1460	1660	5800	8420	2300	1890	1240	1640
28....	1410	1370	1640	1390	1460	1660	5530	9240	2150	1520	1100	1490
29....	1410	1370	1640	1390	....	1660	5190	10100	2150	1440	1780	1220
30....	1320	1370	1490	1320	....	1760	5530	11000	2130	1340	1250	1120
31....	1410	....	1640	1320	....	1840	....	10500	....	1170	1190	....
Total	49560	43040	43860	44060	38330	46040	97770	317610	129250	46973	43564	37297
Mean.	1599	1435	1415	1421	1369	1485	3259	10250	4308	1515	1405	1243
Max..	1980	1590	1640	2020	1460	1840	6140	14700	9660	2100	2220	2080
Min..	1320	1200	1200	1320	1290	1320	1670	5850	2130	893	994	970
Acre-ft.	98300	85370	86990	87390	76030	91320	193900	630000	256400	93170	86410	73980

Discharge of Colorado River Near Palisade for Year Ending Sept. 30, 1933.
Drainage Area, 8,790 Square Miles. Altitude, 4,729 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	840	1250	1880	....	....	1250	1880	1250	30100	11000	1450	376
2....	840	1450	1880	....	....	1250	1660	1450	37100	10500	1450	376
3....	1010	1450	1660	....	....	1020	1880	1880	30800	10000	1660	269
4....	1250	1450	1660	....	....	1020	2120	2120	30800	10500	1660	376
5....	840	1660	1660	....	....	1250	1880	2120	30800	11000	1450	269
6....	1010	1660	1660	....	....	1250	2120	1880	30100	11400	1450	177
7....	840	1660	1660	....	....	1450	2120	1880	27700	11000	1250	177
8....	1010	1660	1660	....	....	1250	1880	1660	26400	11400	1010	177
9....	1250	1660	1450	....	....	1250	1880	2120	25100	10500	840	376
10....	1450	1880	1250	....	....	1020	1660	2360	28800	9600	690	376
11....	1250	1880	1250	....	....	1020	1450	2670	24200	8660	550	547
12....	1010	1880	1010	....	....	1250	1250	2120	35600	8240	380	547
13....	1010	1880	844	....	....	1250	1020	1880	34200	7420	380	376
14....	840	1880	844	....	....	1450	1020	2120	32100	7010	270	376
15....	1010	1880	844	....	....	1660	845	2360	28800	5880	270	269
16....	840	2120	689	....	....	1660	845	2360	28800	6620	270	269
17....	840	1880	844	....	....	1660	815	2670	28400	5880	270	378
18....	1010	1880	844	....	....	1880	690	3220	27700	5160	270	269
19....	1010	1880	689	....	....	1660	845	5880	27700	4160	380	177
20....	1010	1880	689	....	....	1660	1020	11000	26400	3510	550	269
21....	840	2120	689	....	....	1660	1040	14900	25100	3810	380	269
22....	1010	2120	689	....	....	1450	870	18600	22600	3220	270	376
23....	1250	2120	689	....	....	1660	845	16000	20800	2670	270	547
24....	1010	1880	689	....	....	1450	870	11900	19100	2360	270	547
25....	840	1880	844	....	....	1450	1020	11000	17400	2120	380	689
26....	1010	1880	689	....	....	1660	1250	11900	15400	1880	270	689
27....	1250	1880	689	....	....	1880	1450	14900	14900	1880	380	844
28....	1250	1880	689	....	....	1880	1880	19700	13400	1880	550	689
29....	1250	2120	689	....	....	1660	2120	22000	12800	1450	380	547
30....	1450	1880	547	....	....	1880	2120	23900	11400	1250	270	547
31....	1450	....	547	....	....	1880	....	27000	....	1450	380	....
Total	32780	54580	32417	....	....	45670	42345	246200	764500	193410	20300	12170
Mean.	1060	1820	1050	1080	1030	1470	1410	7940	25500	6240	655	406
Max..	1450	2120	1880	....	....	1880	2120	27000	37100	11400	1660	844
Min..	840	1250	547	....	....	1020	690	1250	11400	1250	270	177
Acre-ft.	65200	108000	64600	66400	57200	90400	83900	488000	1520000	384000	10300	24200

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River Near Cisco, Utah, for Year Ending Sept. 30, 1933.
Drainage Area, 24,100 Square Miles. Altitude 4,088 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2560	3180	3000	1800	2340	3200	3550	5080	41200	13400	3270	1520
2....	2560	3180	3000	1800	2320	3200	3270	4760	44500	12300	3650	1500
3....	2450	3000	3000	1800	2320	3100	3550	4660	49200	10900	3460	1420
4....	2560	3090	3000	1800	2300	3000	3840	4550	44000	9600	3740	1380
5....	2450	3090	3000	1800	2300	2900	4140	5190	41800	10200	3460	1390
6....	2430	3180	2910	1800	2300	2850	2480	5410	43100	10200	3270	1300
7....	2400	3090	2650	1800	2250	2800	3940	5880	42200	10200	3270	1250
8....	2410	3090	2480	1800	2200	2850	3550	6140	40000	10600	3550	1190
9....	2380	3000	2280	1800	2150	2900	3460	6010	33300	11600	3650	1350
10....	2330	3180	2200	1800	2100	3000	3360	5640	29400	11200	3550	3090
11....	2360	3000	2180	2300	2100	3100	3270	5300	33300	10200	3360	2290
12....	2560	3090	2160	2300	2100	3200	3000	4970	39500	9600	3090	2280
13....	2650	2910	2150	2300	2100	3300	2820	4760	42700	9000	2910	2480
14....	2650	2820	2100	2300	2120	3460	2650	4340	41300	8100	2910	3180
15....	2650	2910	2000	2300	2150	3360	2410	3940	38600	7240	2280	3460
16....	2650	3000	1800	2300	2200	3360	2310	3650	38200	6140	1820	3180
17....	2650	3180	1800	2300	2250	3270	2110	3740	37700	4970	1720	3180
18....	2560	3000	1800	2300	2300	2910	2190	5880	36400	5190	1510	3090
19....	2560	3270	1800	2300	2300	2910	2380	10600	34200	5300	1380	3000
20....	2560	3090	1800	2300	2280	2740	3000	15900	34200	4860	1500	3090
21....	2740	3180	1800	2300	2260	2560	3360	21500	33300	4440	1620	3180
22....	2650	3000	1800	2300	2250	2560	3550	27300	30700	3740	1570	3740
23....	3090	3090	1800	2300	2250	2560	3000	28600	27300	3000	1580	4340
24....	3090	2910	1800	2300	2250	2460	2560	23600	25200	2740	1640	3940
25....	3180	2910	1800	2300	2200	2310	2380	19900	22300	2740	1570	3550
26....	3270	2820	1800	2300	2400	2290	2360	19500	19900	2740	1450	3360
27....	3180	2740	1800	2300	2600	2280	2410	21500	19100	2650	1400	3180
28....	3180	2710	1800	2410	2870	2480	2560	26500	17500	2340	1540	3180
29....	3180	2820	1800	2400	....	2480	3000	31600	15600	2220	1580	2820
30....	3180	2820	1800	2380	....	2650	4240	34600	14400	2190	1540	2560
31....	3180	....	1800	2360	....	3000	....	37300	....	2140	1500	....
Total	84300	90350	66910	66650	63660	89040	90700	408300	1010200	211740	74340	78470
Mean.	2720	3010	2160	2150	2270	2870	3020	13200	33700	6830	2400	2620
Ac.-ft.	167000	179000	133000	132000	126000	176000	180000	812000	2010000	420000	148000	156000

Discharge of Colorado River Near Cisco, Utah, for Year Ending Sept. 30, 1934.
Drainage Area, 24,100 Square Miles. Altitude 4,088 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	2490	2810	2640	2620	2270	2300	2010	6520	11600	1520	900	980
2....	2540	2230	2780	2810	2090	2300	2060	6810	10900	1430	850	850
3....	2450	2350	2610	2680	2040	2280	2010	7950	9690	1370	850	778
4....	2280	2520	2640	2660	2060	2300	2110	8000	8500	1250	800	736
5....	2440	2560	2640	2560	2150	2320	2280	7870	7660	1270	850	752
6....	3320	2640	2370	2420	2250	2300	2250	7740	6810	1260	1040	704
7....	4250	2690	2350	2370	2300	2270	2070	8220	6110	1260	900	744
8....	3470	2620	2140	2270	2230	2300	1900	9570	5830	1200	850	760
9....	3210	2570	2140	2220	2300	2300	1860	11700	5560	1170	850	980
10....	3100	2520	2440	2120	2320	2230	1840	13500	5080	1110	800	1020
11....	2940	2520	2400	2120	2230	2120	1880	15500	4510	1030	800	1160
12....	2870	2590	2490	2110	2200	2120	2010	16700	4230	960	1040	1040
13....	2730	2710	2640	2040	2140	2140	2450	16800	3990	913	895	1080
14....	2830	2690	2890	2060	1960	2170	3380	16400	3760	850	1000	1150
15....	2610	2570	2740	2120	2140	2110	4450	15200	3450	868	1120	1040
16....	2590	2570	2990	2280	2110	2300	4450	12800	3250	769	1130	1010
17....	2590	2540	2680	2230	2170	2370	4470	11500	3010	787	1200	1060
18....	2590	2540	2500	2340	2340	2470	4470	11600	2920	736	1120	950
19....	2490	2520	2170	2170	2370	2560	3930	11800	2740	672	1040	922
20....	2450	2500	1900	2140	2280	2300	3740	11900	2570	680	1060	859
21....	2440	2660	2010	2170	2230	2280	3790	11700	2420	640	1330	868
22....	2400	2490	2000	2150	2340	2190	4310	11700	2190	1140	1610	931
23....	2370	2620	2200	2220	2400	2150	5140	11200	2040	1590	1250	1010
24....	2320	2420	2370	2300	2450	2010	5830	10200	1900	1250	1310	1060
25....	2230	2400	2450	2280	2610	2280	6080	9330	1960	990	1270	1180
26....	2190	2540	2680	2320	2520	2060	6430	8840	1840	900	1120	1780
27....	2140	2520	2680	2300	2390	2140	7100	8920	1900	800	970	2040
28....	2140	2570	2740	2110	2340	1950	7030	8920	1840	1040	850	1720
29....	2120	2450	2890	2170	....	2030	6740	9040	1780	1200	760	1600
30....	2140	2690	2690	2230	....	1980	6380	9690	1650	1100	1000	1590
31....	2170	....	2340	2070	....	2040	....	11300	....	1000	950	....
Total	80900	76620	77490	70660	63230	68670	114450	338920	131690	32755	31515	32354
Mean.	2610	2554	2500	2279	2258	2215	3815	10930	4390	1057	1017	1078
Ac.-ft.	160500	152000	153700	140200	125400	136200	227000	672200	261200	64970	82510	64170

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Colorado River at Lees Ferry, Arizona, for Year Ending Sept. 30, 1933.
Drainage Area Square Miles. Altitude Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	5540	6520	6060	3700	5100	7580	7000	10800	59200	32400	5840	2810
2....	5510	6420	6060	3000	5040	7720	7200	11800	66100	29700	5330	2690
3....	5220	6620	6190	2900	4800	8220	7500	14600	70100	27400	5550	2810
4....	5160	6680	6260	3000	4700	8330	7600	16900	75200	24800	6220	2810
5....	5070	6680	6350	3800	4700	8180	7900	17700	79900	22700	7790	2720
6....	4880	6580	6260	3200	4600	8110	8200	17400	77100	20700	7470	2740
7....	4820	6420	6160	3400	4300	7820	8900	16500	76000	21700	6820	2850
8....	4770	6450	6100	3100	4000	7580	9630	16600	79000	25500	9140	2850
9....	4740	6480	5880	3200	3600	7470	10000	16800	78000	32400	9750	3550
10....	4710	6580	5910	3400	2400	7580	9630	17100	73100	27400	9410	4360
11....	4770	6520	5660	4000	2600	7500	9710	17400	67300	27800	8150	10800
12....	4880	6420	5390	4600	4200	7860	9520	17700	65100	26000	7060	10700
13....	4740	6220	5130	4900	3720	7930	9440	17300	70900	22700	6580	8040
14....	4790	6190	4770	4500	3990	8510	9290	16100	75500	20200	6450	7470
15....	4820	6190	4090	4500	3970	8990	8730	14600	76700	19200	6060	7230
16....	4930	6320	3320	4700	4160	9070	8220	13700	75400	18700	5660	7190
17....	5020	6130	2950	4900	4420	8880	7820	12800	72700	16500	5020	7260
18....	5020	5940	2670	4900	4680	9100	7440	12000	72700	15000	4630	7640
19....	5270	5940	2360	4700	4660	9940	7090	11200	72200	13900	4240	6790
20....	5220	6060	2740	4800	4680	9220	6620	10800	71000	14200	3970	6030
21....	5360	6220	2860	4800	4960	8810	6650	13800	69100	13500	3740	8660
22....	5390	6100	3340	4900	4930	8620	6450	25200	68600	11500	3700	11100
23....	5510	6320	3660	5100	4990	8400	6960	33300	65500	10800	4120	11900
24....	5600	6390	3860	5300	5160	8700	7640	43300	63800	9710	3920	7720
25....	6650	6320	3590	5200	5240	8510	8150	46800	59000	8990	3680	6680
26....	6390	6260	3400	5360	5390	7820	8700	43700	54800	8510	3420	7020
27....	6750	6420	3400	5390	5600	7440	10300	38900	48700	8880	3240	7260
28....	6680	6450	3400	5300	6750	7130	9600	39000	44100	9330	3140	6580
29....	6720	6320	3300	5270	....	6650	9140	39800	39500	7610	3050	6130
30....	6790	6100	3000	5240	....	6580	8660	46600	36400	6890	2950	5780
31....	6820	....	2600	5100	....	6500	....	53300	....	6450	2900	....
Total	168540	190260	136720	136160	127340	250750	249690	723500	2002700	561070	170000	188170
Mean.	5440	6340	4410	4390	4550	8090	8320	23300	66800	18100	5480	6270
Ac-ft.	334000	377000	271000	270000	253000	497000	495000	1440000	3970000	1110000	337000	373000

Discharge of Fraser River Near West Portal for Year Ending Sept. 30, 1933.
Drainage Area, 27.6 Square Miles. Altitude, 9,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	14	9	5	4	3	8	12	293	167	46	23
2....	16	12	9	5	4	4	9	12	276	167	45	23
3....	16	12	9	5	4	4	10	12	276	172	42	22
4....	16	10	9	5	3	3	8	13	264	155	42	22
5....	16	14	9	5	3	4	7	13	264	141	42	21
6....	16	16	9	5	3	4	7	13	276	136	43	21
7....	16	16	9	5	3	4	8	11	301	192	43	21
8....	16	15	8	5	3	4	8	10	301	159	45	20
9....	19	14	8	5	3	4	8	10	326	136	41	24
10....	14	13	8	5	3	4	8	10	334	121	40	47
11....	14	12	8	5	3	5	8	9	358	114	39	37
12....	14	11	7	5	3	5	8	9	351	107	36	36
13....	15	11	7	5	3	5	7	10	344	93	36	36
14....	16	11	7	5	3	6	7	11	336	88	35	36
15....	15	11	7	5	3	6	8	13	328	82	34	34
16....	14	10	7	4	3	7	8	15	321	76	33	32
17....	14	10	6	4	3	7	9	27	314	73	32	31
18....	14	10	6	4	3	7	10	45	301	68	31	30
19....	13	10	6	4	3	7	9	68	288	63	35	29
20....	14	10	6	4	3	7	8	86	276	59	31	28
21....	14	10	6	4	3	8	8	108	266	60	27	27
22....	16	10	6	4	3	8	7	108	254	59	27	27
23....	16	10	6	4	3	7	8	84	243	55	26	27
24....	16	10	6	4	3	7	9	90	234	52	26	27
25....	14	9	6	4	3	6	9	102	220	51	26	26
26....	14	9	6	4	3	7	10	114	211	50	27	27
27....	14	9	6	4	3	7	10	127	203	48	28	26
28....	14	9	6	4	3	8	11	141	196	48	28	24
29....	14	9	5	4	....	8	11	148	187	47	27	24
30....	10	9	5	4	....	8	11	222	178	45	25	23
31....	16	....	5	4	....	8	....	222	....	43	24	....
Total	462	336	217	139	87	182	257	1875	8320	2927	1062	831
Mean.	14.9	11.2	7.0	4.48	3.11	5.87	8.57	60.5	277	94.4	34.3	27.7
Max....	19	16	9	5	4	8	11	222	358	192	46	47
Min....	10	9	5	4	3	3	7	9	178	43	24	20
Acre-ft.	916	666	430	275	173	361	510	3720	16500	5800	2110	1650

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Fraser River Near West Portal for Year Ending Sept. 30, 1934.
Drainage Area, 27.6 Square Miles. Altitude, 9,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	30	9.2	16	7.5	7.0	8.2	11	60	124	33	20	12
2....	30	9.2	20	7.0	7.0	8.2	12	66	124	31	19	14
3....	36	9.2	14	7.0	7.0	8.2	12	63	118	29	19	14
4....	32	8.0	16	7.0	7.5	7.7	13	60	112	27	19	11
5....	30	4.4	11	7.0	7.5	7.7	13	68	112	32	22	11
6....	29	7.0	10	7.7	7.2	7.9	13	80	111	31	21	11
7....	23	10	9.1	7.2	7.7	7.5	15	95	111	27	19	12
8....	21	13	9.1	7.7	7.2	7.5	18	105	106	28	19	14
9....	20	15	8.2	7.7	8.6	7.9	19	129	106	28	22	14
10....	19	18	7.7	7.2	6.5	7.9	19	128	101	29	19	13
11....	16	17	8.2	7.5	7.5	7.9	22	133	99	27	19	11
12....	16	15	7.7	7.5	8.4	8.0	28	133	90	27	18	11
13....	16	16	8.2	7.0	7.9	8.1	26	128	81	26	17	11
14....	15	13	7.7	7.5	7.9	8.2	24	124	80	26	18	11
15....	15	15	7.7	7.0	7.5	8.3	24	106	80	23	20	9.6
16....	14	17	6.8	7.0	7.7	8.4	24	112	75	23	20	9.6
17....	13	15	7.7	7.0	7.7	8.5	26	116	69	23	16	9.6
18....	15	13	8.2	7.0	7.7	8.6	30	121	68	22	16	9.6
19....	14	9.8	7.7	7.0	7.7	8.6	28	131	66	22	17	9.6
20....	13	16	7.2	7.0	7.7	8.2	30	136	63	22	20	15
21....	13	15	6.8	7.0	7.5	8.2	34	138	60	21	18	14
22....	12	11	6.8	7.1	7.5	7.7	37	143	57	21	16	13
23....	13	11	7.2	7.2	7.9	8.2	40	140	51	22	15	11
24....	13	12	6.8	7.2	7.9	8.2	48	134	48	25	15	10
25....	12	13	7.0	7.2	7.9	8.6	53	133	45	25	14	11
26....	12	14	7.2	7.0	7.7	8.2	57	133	42	24	14	11
27....	11	13	7.5	7.5	7.7	8.4	50	126	40	23	14	11
28....	11	16	7.5	7.0	8.2	9.1	54	126	38	23	14	13
29....	10	16	7.5	7.0	....	9.8	58	131	36	23	14	13
30....	9.2	16	7.5	7.0	....	10	60	147	34	22	13	12
31....	8.4	....	7.0	7.0	....	10	....	141	....	21	13	....
Total	541.6	386.8	277	222.7	213.2	257.9	898	3586	2347	786	541	352
Mean.	17.5	12.9	8.94	7.18	7.61	8.32	29.9	116	78.2	25.4	17.5	11.7
Max....	36	18	20	7.7	8.6	10	60	147	124	33	23	15
Min....	8.4	4.4	6.8	7.0	6.5	7.5	11	60	34	21	13	9.6
Acre-ft.	1070	767	549	442	423	512	1780	7110	4660	1560	1070	698

Discharge of Williams Fork River at Mouth of Steelman Creek for Year Ending Sept. 30, 1933.
Drainage Area, 16.3 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	114	42	9
2....	108	36	8
3....	108	34	8
4....	122	29	8
5....	100	27	7
6....	97	26	7
7....	124	28	7
8....	109	30	7
9....	97	29	14
10....	94	26	24
11....	87	22	19
12....	82	19	17
13....	76	18	22
14....	72	18	22
15....	69	16	16
16....	61	16	14
17....	63	16	12
18....	55	16	10
19....	48	20	9
20....	541.6	386.8	....	....	....	....	....	....	....	49	16	8
21....	17.5	12.9	8.94	7.18	7.61	8.32	29.9	....	....	46	16	10
22....	44	14	8
23....	186	41	7
24....	170	38	6
25....	166	36	11
26....	152	38	12
27....	138	35	14
28....	134	30	15
29....	126	29	12
30....	121	34	10
31....	38	10	....
Total	2144	623	321
Mean.	69.2	20.1	10.7
Max....	124	42	24
Min....	29	10	6
Acre-ft.	4250	1240	637

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Williams Fork River at Mouth of Steelman Creek for Year Ending Sept. 30, 1934.
Drainage Area, 16.3 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7.4	....	....	....	....	....	....	....	129	31	11	9.2
2....	7.4	....	....	....	....	....	....	....	119	28	12	10
3....	8.7	....	....	....	....	....	....	....	110	31	11	10
4....	14	....	....	....	....	....	....	....	104	34	12	9
5....	14	....	....	....	....	....	....	....	106	32	14	8.7
6....	10	....	....	....	....	....	....	....	113	27	16	9
7....	8.4	....	....	....	....	....	....	....	101	25	20	9
8....	8.0	....	....	....	....	....	....	....	91	24	19	12
9....	7.7	....	....	....	....	....	....	....	91	24	26	14
10....	7.2	....	....	....	....	....	....	....	93	22	18	13
11....	7.2	....	....	....	....	....	....	....	88	21	16	12
12....	7.4	....	....	....	....	....	....	....	87	19	14	11
13....	7.4	....	....	....	....	....	....	....	83	19	14	10
14....	7.4	....	....	....	....	....	....	....	79	18	17	9
15....	7.2	....	....	....	....	....	....	....	73	16	17	8.7
16....	7.7	....	....	....	....	....	....	....	67	16	14	8.4
17....	7.7	....	....	....	....	....	....	....	62	15	13	8.2
18....	5.7	....	....	....	....	....	....	....	60	14	11	8.0
19....	7.2	....	....	....	....	....	....	....	60	12	13	7.7
20....	6.1	....	....	....	....	....	....	....	53	12	18	11
21....	6.3	....	....	....	....	....	....	....	51	16	15	12
22....	6.5	....	....	....	....	....	....	....	47	18	13	11
23....	6.5	....	....	....	....	....	....	....	44	19	11	9.2
24....	6.1	....	....	....	....	....	....	....	47	16	11	8.7
25....	6.1	....	....	....	....	....	....	....	44	16	10	9.0
26....	6	....	....	....	....	....	....	....	40	15	10	9.2
27....	6	....	....	....	....	....	....	....	37	12	10	8.4
28....	6	....	....	....	....	....	....	....	35	12	11	8.0
29....	6	....	....	....	....	....	....	....	34	11	11	7.4
30....	6	....	....	....	....	....	....	....	33	11	10	7.2
31....	6	....	....	....	....	....	....	135	....	11	9.2	....
Total	231.3	....	....	....	....	....	....	....	2181	597	427.2	288
Mean.	7.46	....	....	....	....	....	....	....	72.7	19.3	13.8	9.60
Max....	14	....	....	....	....	....	....	....	129	34	26	14
Min....	5.7	....	....	....	....	....	....	....	33	11	9.2	7.2
Acre-ft.	459	....	....	....	....	....	....	....	4330	1180	847	571

Discharge of Williams Fork River Near Leal for Year Ending Sept. 30, 1933.
Drainage Area, 84 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	409	138	48
2....	381	125	46
3....	377	116	43
4....	385	104	43
5....	347	102	42
6....	317	97	42
7....	409	91	40
8....	347	97	40
9....	310	93	44
10....	292	88	80
11....	274	80	70
12....	259	72	70
13....	238	76	62
14....	218	76	72
15....	199	74	80
16....	187	70	50
17....	196	70	50
18....	178	70	46
19....	1280	169	91	44
20....	1220	163	80	43
21....	1080	149	72	43
22....	922	146	68	42
23....	782	141	60	43
24....	717	130	57	40
25....	670	128	55	38
26....	609	123	60	43
27....	556	116	66	40
28....	537	106	72	34
29....	466	104	62	31
30....	448	108	55	28
31....	113	53	....
Total	7019	2490	1437
Mean.	226	80.3	47.9
Max....	409	138	80
Min....	104	53	28
Acre-ft.	13900	4940	2850

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Williams Fork River Near Leal for Year Ending Sept. 30, 1934.
Drainage Area, 84 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	30	23	....	....	21	25	136	416	87	38	33
2....	33	29	23	....	....	21	24	140	356	80	41	35
3....	50	28	22	....	....	20	24	136	324	82	38	39
4....	55	28	25	....	....	20	24	126	297	102	42	35
5....	50	27	23	....	....	20	25	143	301	96	44	33
6....	48	27	23	....	....	20	24	182	316	80	46	33
7....	41	27	24	....	....	20	26	235	297	74	49	31
8....	36	26	24	....	....	20	28	265	262	76	46	38
9....	35	26	24	....	....	20	32	297	252	72	87	49
10....	33	26	24	....	....	20	37	316	248	66	64	46
11....	32	24	23	....	....	21	42	328	241	62	58	42
12....	33	24	23	....	....	22	55	356	238	60	52	38
13....	32	27	24	....	....	23	56	320	232	58	52	35
14....	32	25	23	....	....	24	52	248	212	55	62	32
15....	31	24	23	....	....	24	50	232	209	50	70	30
16....	31	26	22	....	....	24	44	258	194	49	55	29
17....	32	26	23	....	....	24	44	301	173	48	50	29
18....	31	20	22	....	....	25	48	328	162	48	46	28
19....	32	24	21	....	....	26	55	382	159	44	48	27
20....	32	25	20	....	....	26	58	412	148	43	58	42
21....	31	24	22	....	....	23	72	416	138	49	58	44
22....	32	26	22	....	....	22	78	373	133	50	49	43
23....	33	25	22	....	....	23	78	356	128	62	43	38
24....	31	23	22	....	....	23	98	344	138	54	42	36
25....	30	30	22	....	....	24	114	361	138	50	39	38
26....	29	25	22	....	....	26	123	365	121	52	39	41
27....	28	22	22	....	....	26	100	369	109	43	38	39
28....	29	23	22	....	....	26	109	377	105	41	37	41
29....	28	23	22	....	....	26	114	443	98	41	37	39
30....	30	24	22	....	....	26	123	510	91	37	37	37
31....	30	....	22	20	....	26	....	480	....	38	33	....
Total	1062	764	701	....	....	712	1782	9535	6236	1849	1498	1100
Mean...	34.3	25.5	22.6	21	20	23.0	59.4	308	208	59.6	48.3	36.7
Max...	55	30	25	....	....	26	123	510	416	102	87	49
Min...	28	20	20	....	....	20	24	126	91	37	33	27
Acre-ft.	2110	1520	1390	1290	1110	1410	3530	18910	12370	3670	2970	2180

Discharge of Williams Fork River Near Parshall for Year Ending Sept. 30, 1933.
Drainage Area, 184 Square Miles. Altitude, . . . Feet Above Sea Level.

Station established June 19, 1933.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	443	131	42
2....	394	119	35
3....	380	112	30
4....	394	95	30
5....	380	101	30
6....	303	110	30
7....	457	109	29
8....	366	112	29
9....	328	116	28
10....	303	109	28
11....	303	102	35
12....	303	96	40
13....	231	90	45
14....	231	88	50
15....	221	86	55
16....	201	86	60
17....	201	80	72
18....	191	84	71
19....	1062	....	701	....	....	712	....	1030	191	119	65	58
20....	1270	....	1270	161	110	58	58
21....	1890	171	94	59	59
22....	994	152	84	58	58
23....	831	139	74	58	58
24....	755	107	70	54	54
25....	793	95	65	50	50
26....	700	94	65	48	48
27....	616	88	77	44	44
28....	566	83	89	40	40
29....	498	80	70	36	36
30....	489	83	58	32	32
31....	107	49	....	....
Total	7181	2850	1341	....
Mean...	232	91.9	44.7	....
Max...	457	131	72	....
Min...	80	49	28	....
Acre-ft.	14300	5650	2660	....

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Williams Fork River Near Parshall for Year Ending Sept. 30, 1934.
Drainage Area, 184 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	52	45	....	....	....	34	50	150	465	72	26	42
2....	52	40	....	....	....	34	50	152	415	78	28	44
3....	72	34	....	....	....	34	50	160	367	101	26	46
4....	76	30	....	....	....	34	50	152	334	96	42	40
5....	60	27	....	....	....	34	52	160	283	92	52	35
6....	56	46	....	....	....	34	50	193	298	82	64	32
7....	52	44	....	....	....	34	54	233	287	67	64	25
8....	50	44	....	....	....	34	58	268	243	57	60	25
9....	48	43	....	....	....	34	62	283	233	66	118	22
10....	48	43	....	....	....	34	66	314	220	60	116	19
11....	48	42	....	....	....	36	80	318	220	54	111	18
12....	51	42	....	....	....	36	101	355	205	51	101	15
13....	52	42	....	....	....	36	106	351	196	50	96	13
14....	51	42	....	....	....	36	99	236	188	46	104	11
15....	51	42	....	....	....	36	99	240	185	44	99	10
16....	48	41	....	....	....	42	78	264	176	44	78	10
17....	46	40	....	....	....	42	74	338	176	36	67	10
18....	46	40	....	....	....	42	86	484	155	26	60	19
19....	46	39	....	....	....	42	90	513	150	25	57	36
20....	46	36	....	....	....	42	94	543	150	27	59	57
21....	45	42	....	....	....	40	100	470	142	26	60	78
22....	45	40	....	....	....	40	108	380	135	25	60	69
23....	46	40	....	....	....	40	104	355	120	38	59	62
24....	46	40	....	....	....	40	125	342	125	31	59	60
25....	45	40	....	....	....	40	142	351	140	32	60	62
26....	42	38	....	....	....	42	150	384	116	35	62	62
27....	41	38	....	....	....	45	120	367	104	32	62	59
28....	39	38	....	....	32	48	130	398	99	31	64	62
29....	41	38	....	....	....	48	132	470	90	29	64	60
30....	41	38	....	....	....	48	142	543	82	27	60	57
31....	41	....	....	....	....	51	....	504	....	27	51	....
Total	1523	1194	....	....	....	1212	2702	10271	6109	1507	2089	1160
Mean.	49.1	39.8	34	36	35	39.1	90.1	331	204	48.6	67.4	38.7
Max...	76	46	....	....	....	51	150	543	465	101	118	78
Min...	39	27	....	....	....	....	50	150	82	25	26	10
Acre-ft.	3020	2370	2090	2210	1940	2400	5360	20370	12120	2990	4140	2300

Discharge of Blue River at Dillon for Year Ending Sept. 30, 1933.
Drainage Area, 129 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	52	31	....	....	....	....	28	32	499	274	110	53
2....	49	32	....	....	....	....	28	34	637	259	112	51
3....	49	32	....	....	....	....	28	35	560	250	112	49
4....	49	32	....	....	....	....	28	35	511	253	106	48
5....	49	35	....	....	....	....	28	37	587	250	103	47
6....	48	32	24	....	....	....	28	38	696	244	103	46
7....	48	30	....	....	....	....	28	38	674	329	103	44
8....	47	32	....	....	....	....	28	38	511	344	105	42
9....	48	32	....	....	....	....	28	37	419	294	105	43
10....	49	35	....	....	....	....	28	35	455	282	102	47
11....	49	32	....	....	....	....	26	38	554	270	94	51
12....	48	24	....	....	....	....	26	44	574	259	87	65
13....	47	20	....	....	....	....	26	46	587	238	81	75
14....	47	24	....	....	....	....	26	47	547	215	78	78
15....	48	26	....	....	....	....	26	51	574	207	74	78
16....	46	28	....	....	....	....	30	61	560	199	70	75
17....	46	28	....	....	....	....	34	78	541	186	68	70
18....	46	28	....	21	....	....	23	115	528	181	68	64
19....	44	28	....	....	....	....	35	167	511	167	75	58
20....	43	28	....	....	....	....	36	228	493	158	81	57
21....	42	24	....	....	....	....	36	287	466	155	77	58
22....	38	24	....	....	....	7	35	314	455	149	65	56
23....	....	....	....	....	....	....	20	278	401	142	53	53
24....	41	24	....	....	....	....	28	233	383	140	51	52
25....	41	24	....	....	....	....	28	204	383	136	47	49
26....	42	26	....	....	....	....	28	209	370	132	46	48
27....	41	26	....	....	....	....	29	241	353	124	49	48
28....	40	26	....	....	....	....	35	278	329	115	49	47
29....	38	26	....	....	....	....	35	294	314	105	53	46
30....	36	26	....	....	....	....	35	340	290	103	53	44
31....	32	....	....	....	....	....	....	415	....	106	53	....
Total	1383	839	....	....	....	....	887	4327	14762	6266	2433	1642
Mean.	44.6	28.0	25	22	20	24	29.6	140	492	202	78.5	54.7
Max...	52	35	....	....	....	....	36	415	696	344	112	78
Min...	32	20	....	....	....	....	....	32	290	103	46	42
Acre-ft.	2740	1670	1540	1350	1110	1480	1760	8610	29300	12400	4830	3250

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Blue River at Dillon for Year Ending Sept. 30, 1934.
Drainage Area, 129 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	46	36	26	....	....	....	26	122	353	112	64	61
2....	46	35	26	....	....	....	26	132	311	110	62	61
3....	46	37	....	....	....	....	26	140	287	105	64	61
4....	47	34	....	....	....	....	28	138	271	102	61	58
5....	47	32	....	....	....	....	28	140	250	100	61	57
6....	46	32	....	....	....	....	28	149	247	103	62	56
7....	46	35	....	....	....	....	28	158	244	98	64	54
8....	46	30	....	....	....	....	28	174	233	94	65	54
9....	46	30	....	....	....	....	28	194	215	92	78	54
10....	44	32	....	....	....	....	30	228	212	90	112	54
11....	46	32	....	....	....	....	34	259	215	88	106	54
12....	46	28	....	....	....	....	38	329	215	87	96	53
13....	46	26	....	....	....	....	44	344	212	85	87	52
14....	44	26	....	....	....	....	46	322	202	84	82	52
15....	40	26	....	....	....	....	46	281	204	82	81	51
16....	36	26	24	....	....	....	46	265	194	84	81	49
17....	36	24	....	....	....	....	48	268	176	84	81	48
18....	36	24	....	....	....	....	48	294	153	82	77	48
19....	36	25	....	....	....	....	51	318	151	75	80	48
20....	35	24	....	....	....	....	56	349	151	73	84	49
21....	36	30	....	....	....	....	69	370	144	64	91	51
22....	37	26	....	....	....	....	81	361	140	64	90	49
23....	37	24	....	....	....	....	96	322	134	75	85	49
24....	37	24	....	....	....	....	100	311	130	103	78	48
25....	36	24	....	....	....	....	105	314	132	117	71	47
26....	36	24	....	....	....	....	118	318	130	103	66	44
27....	36	25	....	....	24	....	124	318	128	92	65	44
28....	36	26	....	....	....	22	112	322	122	82	61	46
29....	36	24	....	....	....	....	112	344	120	77	61	42
30....	36	24	....	18	....	....	115	387	118	73	61	42
31....	37	....	....	....	....	....	....	387	....	66	60	....
Total	1261	845	....	....	....	....	1765	8358	5794	2746	2337	1536
Mean...	40.7	28.2	25	21	22	22	58.8	270	193	88.6	75.4	51.2
Max....	47	37	....	....	....	....	124	387	353	117	112	61
Min....	35	24	....	....	....	....	26	122	118	64	60	42
Acre-ft.	2500	1680	1540	1290	1220	1350	3500	16580	11490	5450	4640	3050

Discharge of Snake River at Dillon for Year Ending Sept. 30, 1933.
Drainage Area, 92 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	11	15	....	....	....	....	14	17	568	360	62	22
2....	11	14	....	....	....	....	14	17	544	335	51	20
3....	10	14	....	....	....	....	14	15	452	310	47	20
4....	10	13	....	....	....	....	14	15	502	262	45	18
5....	10	15	....	....	....	....	14	18	580	234	46	18
6....	9	15	10	....	....	....	14	18	574	272	56	18
7....	9	14	....	....	....	....	14	16	508	405	52	18
8....	9	13	....	....	....	....	14	15	390	325	52	18
9....	10	13	....	....	....	....	14	14	440	276	45	18
10....	10	13	....	....	....	....	14	15	586	258	52	39
11....	10	12	....	....	....	....	12	19	670	236	46	32
12....	10	12	....	....	....	....	12	19	730	229	39	31
13....	10	12	....	....	....	....	12	20	670	182	35	26
14....	10	12	....	....	....	....	12	22	664	159	33	31
15....	10	12	....	....	....	....	12	24	676	144	32	32
16....	10	14	....	....	....	....	11	31	664	130	32	23
17....	10	14	....	....	12	....	14	39	640	122	31	21
18....	10	14	....	8	....	....	20	58	628	110	30	20
19....	10	14	....	....	....	....	17	78	658	101	46	21
20....	10	14	....	....	....	....	12	150	676	92	36	18
21....	11	11	....	....	....	....	14	185	586	86	30	20
22....	11	11	....	....	....	17	16	128	502	75	27	20
23....	11	11	....	....	....	....	11	99	479	68	26	20
24....	11	11	....	....	....	....	10	85	457	61	24	20
25....	13	11	....	....	....	....	10	84	457	57	24	18
26....	11	12	....	....	....	....	10	101	425	54	26	18
27....	12	12	....	....	....	....	11	138	385	52	25	18
28....	15	12	....	....	....	....	15	168	385	49	24	18
29....	15	12	....	....	....	....	17	213	375	45	24	18
30....	15	12	....	....	....	....	17	305	380	45	22	17
31....	16	....	....	....	....	....	....	457	....	55	22	....
Total	340	384	....	....	....	....	405	2533	16251	5189	1142	651
Mean...	11.0	12.8	9.5	8	12	15	13.5	83.3	542	167	36.8	21.7
Max....	16	15	....	....	....	....	20	457	730	406	62	39
Min....	9	....	....	....	....	....	....	14	375	45	22	17
Acre-ft.	676	762	584	492	666	922	803	5120	32300	10300	2260	1290

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Snake River At Dillon for Year Ending Sept. 30, 1934.
Drainage Area, 92 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	16	12	11				12	51	267	31	20	14
2....	16	12	2				12	54	245	28	20	14
3....	19	11					11	52	222	26	20	14
4....	18	14					11	58	191	26	20	12
5....	18	10					10	67	188	31	20	12
6....	16	9					12	93	196	26	23	12
7....	14	9					12	125	146	25	22	12
8....	14	10					14	148	117	24	22	12
9....	14	10					18	199	106	23	56	12
10....	14	10					21	222	104	22	35	12
11....	12	10					28	245	102	22	27	11
12....	12	10					28	240	93	21	25	9.6
13....	12	10					26	210	86	20	23	9.9
14....	13	11					23	151	83	20	24	9.9
15....	12	9.9					20	127	84	19	26	9.6
16....	14	10	14				19	139	78	18	31	9.3
17....	13	11					20	188	67	18	23	9.3
18....	13	9.9					20	236	62	17	22	8.4
19....	12	12					20	258	58	17	21	7.5
20....	12	9.6					22	291	52	16	37	8.4
21....	12	10					22	249	53	18	26	8.1
22....	12	9					20	202	48	22	22	8.4
23....	12	10					18	196	45	36	20	8.7
24....	12	11					20	202	47	39	18	8.4
25....	12	11					26	216	51	32	16	9.3
26....	11	12					34	212	40	42	16	9.0
27....	11	11			7.1		22	180	36	29	15	8.4
28....	12	11				9.4	25	191	33	26	16	8.4
29....	12	11					28	236	30	23	16	8.4
30....	12	11		7.6			39	359	31	22	15	8.4
31....	12							313		21	14	
Total	414	315.4					613	5710	2961	760	711	304.4
Mean..	13.4	10.5	11	9.0	7.5	9.0	20.4	184	98.7	24.5	22.9	10.1
Max...	19	14					39	359	267	42	56	14
Min...	11	9.6					10	51	30	16	14	7.5
Acre-ft.	821	626	676	553	417	553	1220	11330	5870	1510	1410	604

Discharge of Ten Mile Creek at Dillon for Year Ending Sept. 30, 1933.
Drainage Area, 113 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	45	31					30	32	1300	254	134	43
2....	51						30	31	1110	240	115	40
3....	48						30	29	894	247	107	40
4....	45						30	29	1090	258	90	39
5....	43						30	33	1240	247	86	38
6....	45		25				28	33	1160	265	94	36
7....	43						28	32	816	404	86	36
8....	42						28	31	568	304	96	36
9....	43						28	30	652	254	88	38
10....	44						28	31	984	244	82	66
11....	47						26	34	1000	254	75	78
12....	47						26	35	966	237	69	80
13....	47						26	35	840	206	64	64
14....	46						26	35	752	193	62	78
15....	44						26	38	744	190	61	69
16....	42						32	54	776	171	59	58
17....	42				23		35	86	776	163	56	51
18....	42			20			36	134	800	160	56	48
19....	40						34	206	752	146	71	46
20....	41						36	292	645	141	64	44
21....	42						35	427	589	136	55	44
22....	40						44	415	520	132	52	44
23....	38					18	47	304	469	129	51	45
24....	36						41	262	457	122	47	45
25....	34						33	247	394	118	46	46
26....	36						32	373	373	107	46	46
27....	36						31	547	330	104	47	45
28....	36						37	645	325	100	49	44
29....	34						38	728	304	94	46	43
30....	32						32	876	276	96	44	41
31....	32							1110		120	44	
Total	1283						963	7194	21902	5836	2142	1471
Mean..	41.4	28	24	20	22	24	32.1	232	730	188	69.1	49
Max...	51						47	1110	1300	404	134	80
Min...	32							29	276	94	44	36
Acre-ft.	2550	1670	1480	1230	1220	1480	1910	14300	43400	11600	4250	2920

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Ten Mile Creek at Dillon for Year Ending Sept. 30, 1934.
Drainage Area, 113 Square Miles. Altitude, 8,815 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	29	23	.....	.....	.....	20	255	358	69	41	27
2....	31	29	23	.....	.....	.....	20	234	305	65	39	26
3....	43	30	.....	.....	.....	.....	20	183	284	65	39	26
4....	46	29	.....	.....	.....	.....	18	149	263	72	45	27
5....	39	20	.....	.....	.....	.....	19	186	255	83	62	27
6....	39	22	.....	.....	.....	.....	19	289	255	63	55	28
7....	37	22	.....	.....	.....	.....	22	376	238	62	58	30
8....	37	22	.....	.....	.....	.....	26	466	210	59	58	35
9....	35	23	.....	.....	.....	.....	31	501	202	61	100	41
10....	37	23	.....	.....	.....	.....	31	491	202	64	69	40
11....	35	24	.....	.....	.....	.....	35	517	194	58	55	37
12....	35	24	.....	.....	.....	.....	45	528	194	59	52	32
13....	35	25	.....	.....	.....	.....	57	506	183	55	49	31
14....	34	22	.....	.....	.....	.....	57	380	175	50	50	29
15....	34	37	.....	.....	.....	.....	57	362	160	50	55	29
16....	31	37	23	.....	.....	.....	48	413	142	48	58	29
17....	31	31	.....	.....	.....	.....	46	446	132	45	49	29
18....	30	20	.....	.....	.....	.....	52	442	121	43	45	29
19....	31	22	.....	.....	.....	.....	66	456	124	40	41	28
20....	31	24	.....	.....	.....	.....	74	456	115	37	65	35
21....	31	30	.....	.....	.....	.....	94	427	106	40	54	38
22....	31	27	.....	.....	.....	.....	112	362	100	69	46	35
23....	31	26	.....	.....	.....	.....	115	340	91	69	41	33
24....	31	25	.....	.....	.....	.....	135	349	100	80	39	32
25....	31	23	.....	.....	.....	.....	183	353	118	69	35	31
26....	31	27	.....	.....	.....	.....	194	344	94	69	32	31
27....	30	31	.....	.....	18	.....	149	340	85	54	31	29
28....	30	28	.....	.....	.....	24	175	344	80	50	30	31
29....	28	33	.....	.....	.....	.....	202	390	80	46	30	29
30....	28	27	.....	32	.....	.....	218	394	74	44	29	28
31....	27	.....	.....	.....	.....	.....	.....	413	.....	41	27	.....
Total	1032	792	.....	.....	.....	.....	2340	11692	5040	1785	1482	932
Mean.	33.3	26.4	22	25	21	23	73.0	377	167	57.6	47.8	31.1
Max..	46	37	.....	.....	.....	.....	218	528	358	83	100	41
Min..	27	20	.....	.....	.....	.....	18	149	74	37	27	26
Acre-ft.	2050	1570	1350	1540	1170	1410	4640	23190	10000	3540	2940	1850

Discharge of Roaring Fork River at Aspen for Year Ending Sept. 30, 1933.
Drainage Area, 109 Square Miles. Altitude, 7,850 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	46	39	36	.....	.....	.....	.....	43	1260	282	105	30
2....	46	41	36	.....	.....	.....	.....	46	1430	260	102	27
3....	46	43	37	.....	.....	.....	.....	47	1080	268	86	26
4....	47	46	36	.....	.....	.....	.....	43	1150	280	83	24
5....	46	41	41	.....	.....	.....	.....	46	1270	265	79	23
6....	46	39	37	.....	.....	.....	.....	53	1020	255	84	22
7....	46	40	43	.....	.....	.....	.....	42	1000	270	80	22
8....	41	39	41	.....	.....	.....	.....	45	738	270	90	21
9....	41	41	36	.....	.....	.....	.....	43	900	225	77	26
10....	40	39	34	.....	.....	.....	.....	43	1190	213	75	39
11....	42	40	32	.....	.....	.....	.....	44	1310	222	66	66
12....	42	43	34	.....	.....	.....	.....	39	1240	213	59	99
13....	44	43	32	.....	.....	.....	.....	44	1080	183	52	73
14....	44	41	.....	.....	.....	.....	.....	47	1030	167	46	70
15....	44	43	.....	.....	.....	.....	.....	51	1050	163	46	62
16....	41	43	.....	.....	.....	.....	.....	66	1100	141	43	53
17....	39	43	.....	.....	.....	.....	.....	125	1040	155	43	50
18....	41	43	.....	.....	.....	.....	.....	169	1000	155	43	46
19....	41	45	.....	.....	.....	.....	.....	363	970	135	66	41
20....	42	40	.....	.....	.....	.....	.....	512	855	120	58	41
21....	46	41	.....	.....	.....	.....	.....	630	774	116	50	42
22....	50	40	.....	.....	.....	.....	.....	638	658	105	46	47
23....	50	43	.....	.....	.....	.....	.....	399	596	99	42	43
24....	50	45	.....	.....	.....	.....	.....	351	512	89	39	38
25....	38	45	.....	.....	.....	.....	.....	348	470	79	37	43
26....	46	36	.....	.....	.....	.....	.....	484	460	75	36	52
27....	45	41	.....	.....	.....	.....	.....	670	393	76	40	52
28....	45	37	.....	.....	.....	.....	.....	758	375	72	41	47
29....	45	37	.....	.....	.....	.....	.....	885	342	68	37	46
30....	40	36	.....	.....	.....	.....	.....	1020	298	66	33	46
31....	34	.....	.....	.....	.....	.....	.....	1260	.....	94	31	.....
Total	1354	1233	.....	.....	.....	.....	.....	9354	26591	5181	1815	1322
Mean.	43.7	41.1	33.0	.....	.....	.....	.....	302	886	167	58.5	44.1
Max..	50	46	.....	.....	.....	.....	.....	1260	1430	282	105	99
Min..	34	36	.....	.....	.....	.....	.....	39	298	66	31	21
Acre-ft.	2690	2450	2030	.....	.....	.....	.....	18600	52700	10300	3600	2620

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Roaring Fork River at Aspen for Year Ending Sept. 30, 1934.
Drainage Area, 109 Square Miles. Altitude, 7,850 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	23	40	288	378	46	24	18
2....	23	40	259	359	55	23	18
3....	23	38	254	324	46	25	18
4....	23	33	198	271	46	27	18
5....	23	33	259	273	46	21	18
6....	20	26	281	268	45	21	19
7....	20	28	368	237	29	20	23
8....	20	33	410	223	29	20	33
9....	20	40	570	230	35	19	33
10....	20	42	655	217	28	19	35
11....	24	50	655	217	25	28	39
12....	24	65	707	212	26	23	39
13....	24	81	595	210	21	21	38
14....	24	84	545	183	18	18	44
15....	27	86	509	183	15	18	44
16....	28	80	570	126	15	18	42
17....	29	78	625	118	17	17	42
18....	24	74	613	120	17	16	42
19....	27	90	607	118	15	41	42
20....	20	31	108	595	109	15	44	44
21....	30	133	570	106	24	35	44
22....	29	152	429	97	32	30	44
23....	28	150	407	93	45	26	44
24....	29	202	423	92	68	21	49
25....	42	....	....	....	....	29	242	420	94	85	18	44
26....	29	247	410	86	82	18	49
27....	34	204	391	82	80	18	48
28....	37	228	429	70	65	18	48
29....	17	....	38	259	472	59	44	18	48
30....	34	278	492	49	36	18	48
31....	40	....	426	....	28	18	....
Total	834	3244	14432	5204	1178	701	1115
Mean	16	21	26.9	108	466	173	38.0	22.6	37.2
Max...	40	278	707	378	85	44	49
Min...	26	198	49	15	16	18
Acre-ft.	984	1170	1650	6430	28630	10320	2340	1390	2210

Discharge of Roaring Fork River at Glenwood Springs for Year Ending Sept. 30, 1933.
Drainage Area, 1,460 Square Miles. Altitude, 5,720 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	665	604	530	537	488	388	502	712	8500	2710	1080	509
2....	665	619	530	627	434	394	552	688	9580	2490	1130	481
3....	657	634	509	642	401	414	589	688	7170	2420	984	474
4....	642	642	488	768	357	420	657	688	7330	2530	897	467
5....	642	612	481	712	407	427	545	696	8850	2330	877	447
6....	650	627	495	728	460	344	509	752	7300	2540	851	447
7....	634	650	388	704	440	375	516	712	7490	2560	886	447
8....	634	582	460	728	363	382	495	704	5010	2510	895	447
9....	657	597	516	736	434	375	523	680	5340	2260	877	460
10....	696	612	488	657	447	369	488	680	7990	2200	842	502
11....	665	567	481	597	481	394	453	680	9720	2250	776	680
12....	657	567	460	560	537	420	460	627	10300	2160	728	930
13....	665	567	420	672	552	414	467	612	8850	1950	657	834
14....	650	597	375	634	502	382	414	642	7600	1780	619	826
15....	634	574	488	627	427	369	447	672	8300	1690	597	776
16....	634	567	502	672	502	382	453	736	9280	1570	574	736
17....	627	597	467	612	481	394	516	1030	8330	1490	545	712
18....	627	589	530	574	420	382	582	1550	7850	1560	523	728
19....	627	574	495	560	495	382	672	2130	8330	1420	545	752
20....	619	567	537	552	509	375	650	2990	7600	1330	560	728
21....	612	574	467	530	453	375	582	4240	6950	1280	530	744
22....	672	560	516	530	474	369	537	4320	5880	1240	530	842
23....	665	523	502	502	474	357	560	2820	5390	1150	516	801
24....	712	530	523	574	407	388	552	2330	4810	1060	488	752
25....	688	530	574	414	382	344	574	2310	4480	939	481	704
26....	680	530	567	467	363	369	612	3040	4340	851	523	704
27....	696	530	582	382	382	394	650	4080	3870	801	560	704
28....	672	545	597	447	382	434	736	4840	3550	776	552	680
29....	657	516	619	467	....	516	860	5460	3420	712	537	650
30....	650	509	597	420	....	545	776	6300	3020	704	523	634
31....	634	....	516	447	....	474	....	7400	....	904	516	....
Total	20285	17292	15700	18079	12454	12347	16929	65809	206480	52167	21199	19598
Mean	654	576	506	583	445	398	564	2120	6880	1680	684	653
Max...	712	650	619	768	552	545	860	7400	10300	2710	1130	930
Min...	612	509	375	382	357	344	414	612	3020	704	481	447
Acre-ft.	40200	34300	31100	35800	24700	24500	33600	130000	409000	103000	42100	38900

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Roaring Fork River at Glenwood Springs for Year Ending Sept. 30, 1934.
Drainage Area, 1,460 Square Miles. Altitude, 5,720 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	619	404	404	356	310	285	397	1670	2590	602	285	260
2....	611	439	432	369	310	291	376	1640	2250	586	273	260
3....	697	425	390	363	330	317	411	1450	2040	554	260	260
4....	697	432	404	350	330	317	376	1420	1780	546	273	267
5....	671	446	411	350	317	304	369	1460	1680	546	267	273
6....	654	418	343	363	310	310	343	1710	1650	522	273	267
7....	636	439	363	323	317	343	356	2230	1560	484	267	267
8....	611	454	350	267	304	291	397	2650	1440	446	273	310
9....	602	446	345	304	304	298	454	2990	1370	425	323	383
10....	594	446	345	343	310	317	522	3410	1380	418	350	425
11....	578	454	350	350	285	317	594	3530	1370	411	330	397
12....	570	439	360	350	273	323	734	3730	1360	418	304	390
13....	570	432	370	369	291	336	874	3650	1300	397	285	383
14....	562	432	360	369	298	356	893	2980	1230	383	298	376
15....	562	432	350	356	291	356	932	2720	1130	376	310	356
16....	546	432	320	356	291	363	855	2960	1060	363	291	317
17....	538	425	293	304	336	369	762	3220	990	323	279	291
18....	530	439	275	304	298	323	836	3260	941	304	285	285
19....	514	432	280	330	279	323	932	3430	941	273	291	285
20....	507	425	285	310	317	336	990	3350	912	254	323	298
21....	507	418	290	350	323	343	1110	3400	874	336	376	411
22....	484	425	290	330	291	350	1220	2940	836	397	356	446
23....	461	411	290	323	285	350	1230	2630	846	425	330	461
24....	446	404	300	336	330	363	1350	2550	780	546	298	439
25....	454	411	310	323	323	369	1590	2610	780	499	298	514
26....	446	397	320	298	298	356	1720	2680	762	538	267	570
27....	432	383	330	310	304	363	1420	2590	734	476	254	586
28....	432	397	343	310	304	383	1440	2790	679	411	254	578
29....	418	404	336	304	....	383	1490	3110	654	363	273	578
30....	404	390	350	304	....	397	1570	3560	636	336	267	546
31....	390	....	369	336	....	404	....	2940	....	298	267	....
Total	16743	12731	10558	10310	8559	10536	26543	85260	36555	13256	9080	11479
Mean.	540	424	341	333	306	340	885	2750	1218	428	293	383
Max..	697	454	432	369	336	404	1720	3730	2590	602	376	586
Min..	390	383	275	267	273	285	343	1420	636	254	254	260
Acre-ft.	33210	25250	20940	20450	16980	20900	52650	169100	72510	26290	18010	22770

Discharge of Plateau Creek Near Collbran for Year Ending Sept. 30, 1933.
Drainage Area, 88 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	....	....	....	....	14	30	54	1200	80	38	9
2....	15	....	....	....	....	....	31	60	1240	72	34	8
3....	15	....	....	....	....	....	38	64	920	62	27	8
4....	16	....	....	....	....	....	52	66	935	79	25	7
5....	16	....	....	....	....	....	46	72	988	59	27	7
6....	16	....	....	....	....	....	53	87	1230	72	18	7
7....	16	....	9	19	....	....	43	78	672	80	16	7
8....	13	....	....	....	....	....	40	79	546	89	24	7
9....	12	....	....	....	....	....	39	70	697	60	27	13
10....	12	....	....	....	....	....	39	66	642	55	17	23
11....	13	....	....	....	....	....	39	62	558	64	12	17
12....	12	....	....	....	....	....	31	59	490	55	12	16
13....	12	....	....	....	....	....	31	52	445	39	12	16
14....	12	....	....	....	....	....	32	75	440	38	11	16
15....	12	....	....	....	....	....	31	85	430	38	10	16
16....	14	....	....	....	....	....	31	105	420	32	10	16
17....	13	....	....	....	....	....	39	110	410	36	10	14
18....	13	....	....	....	....	....	58	160	400	35	10	21
19....	12	....	....	....	....	....	60	220	385	29	15	19
20....	13	....	....	....	....	....	43	445	380	27	12	12
21....	12	....	....	....	....	....	36	415	365	31	11	29
22....	12	....	....	....	....	....	31	362	340	24	16	29
23....	14	....	....	....	....	....	32	270	290	23	12	18
24....	14	....	....	....	....	....	40	314	229	29	10	12
25....	14	....	....	....	....	....	59	490	208	29	9	11
26....	14	....	....	....	....	....	62	540	187	29	25	14
27....	13	....	....	....	....	....	76	774	156	28	17	11
28....	13	....	....	....	....	....	97	795	123	25	16	9
29....	12	....	....	....	....	....	87	868	115	25	12	8
30....	12	....	....	....	....	....	63	1010	90	27	11	8
31....	12	....	....	....	....	....	....	1090	....	31	10	....
Total	411	....	....	....	....	....	1389	8997	15531	1402	516	408
Mean.	13.3	....	....	....	....	....	46.3	290	518	45.2	16.6	13.6
Max..	16	....	....	....	....	....	97	1090	1240	89	38	29
Min..	12	....	....	....	....	....	30	52	90	23	9	7
Acre-ft.	818	....	....	....	....	....	2760	17800	30800	2780	1020	809

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Plateau Creek Near Collbran for Year Ending Sept. 30, 1934.
Drainage Area, 88 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8.2	....	....	....	....	12	25	261	33	7.1	7.9	7.6
2....	8.7	....	....	....	....	12	24	207	26	7.0	7.1	7.1
3....	9.6	....	....	....	....	12	22	138	23	6.5	6.8	7.0
4....	9.8	....	....	....	....	12	24	148	20	6.3	6.8	6.8
5....	9.6	....	....	....	....	12	23	185	17	6.8	6.6	7.0
6....	11	....	....	....	....	11	20	221	28	6.6	6.6	7.1
7....	10	....	....	....	....	11	23	270	35	6.5	6.6	7.3
8....	10	....	....	....	....	11	27	274	20	6.0	6.8	11
9....	9	....	....	....	....	11	38	274	16	6.0	10	15
10....	9	....	....	....	....	11	43	245	15	7.0	9.8	9.8
11....	9	....	....	....	....	12	47	215	14	7.4	9.8	8.2
12....	8.4	....	....	....	....	12	60	198	13	6.8	7.4	8.4
13....	8.2	....	....	....	....	12	72	174	18	6.8	6.6	7.9
14....	....	....	....	....	....	13	77	160	21	6.5	9.8	7.4
15....	....	....	....	....	....	15	88	145	20	6.0	11	7.4
16....	....	....	....	....	....	13	90	130	20	5.4	9.6	7.3
17....	....	....	....	....	....	13	90	115	18	5.7	11	7.1
18....	....	....	....	....	....	13	104	100	17	6.0	9.3	7.3
19....	....	....	....	....	....	13	122	85	18	6.2	7.9	7.3
20....	....	....	....	....	....	13	151	70	17	6.8	7.3	10
21....	....	....	....	....	....	16	177	61	16	7.4	8.7	13
22....	....	....	....	....	....	22	207	56	15	9.0	8.2	10
23....	....	....	....	....	....	24	198	52	15	9.3	7.3	9.3
24....	....	....	....	....	12	23	218	45	16	9.0	6.8	16
25....	....	....	....	....	....	22	248	42	16	8.4	7.0	13
26....	....	....	....	....	....	23	224	41	13	8.4	7.1	13
27....	....	....	....	....	....	25	196	38	11	7.4	7.1	12
28....	....	....	....	....	....	27	221	40	9.3	7.1	7.3	12
29....	....	....	....	....	....	28	230	39	9.0	6.8	13	13
30....	....	....	....	....	....	26	251	104	7.6	6.6	10	13
31....	....	....	....	....	....	32	....	47	....	6.5	7.9	....
Total	....	....	....	....	....	512	3340	4180	536.9	215.3	255.1	288.3
Mean.	9.27	....	....	....	14	16.5	111	135	17.9	6.95	8.23	9.61
Max...	11	....	....	....	....	32	251	274	35	9.3	13	16
Min...	8.2	....	....	....	....	11	20	38	7.6	5.4	6.6	6.8
Acre-ft.	239	....	....	....	778	1020	6620	8290	1060	427	506	572

Discharge of Buzzard Creek Near Collbran for Year Ending Sept. 30, 1933.
Drainage Area, 139 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	....	....	....	....	17	25	53	632	10	2	1
2....	4	....	....	....	....	....	28	66	544	9	2	1
3....	4	....	....	....	....	....	30	80	399	8	2	1
4....	5	....	....	....	....	....	34	78	342	9	1	1
5....	6	....	....	....	....	....	30	74	414	10	1	1
6....	7	....	....	....	....	....	35	97	399	9	2	1
7....	7	....	11	21	....	....	32	67	280	13	1	1
8....	7	....	....	....	....	....	28	77	180	15	1	2
9....	7	....	....	....	....	....	26	67	176	12	1	2
10....	8	....	....	....	....	....	26	64	174	9	1	2
11....	8	....	....	....	....	....	28	63	176	10	1	2
12....	9	....	....	....	....	....	19	54	160	12	1	2
13....	9	....	....	....	....	....	17	67	140	10	1	2
14....	8	....	....	....	....	....	20	88	130	7	1	2
15....	8	....	....	....	....	....	25	89	110	6	1	2
16....	8	....	....	....	....	....	30	110	95	6	1	2
17....	7	....	....	....	....	....	37	173	80	6	1	1
18....	10	....	....	....	....	....	55	248	70	4	1	3
19....	8	....	....	....	....	....	59	320	65	4	1	4
20....	8	....	....	....	....	....	39	528	55	3	1	4
21....	9	....	....	....	....	....	36	596	45	3	1	5
22....	10	....	....	....	....	....	32	644	40	4	1	7
23....	9	....	....	....	....	....	38	400	36	4	1	6
24....	9	....	....	....	....	....	40	450	30	3	1	6
25....	8	....	....	....	....	....	55	378	28	2	1	5
26....	7	....	....	....	....	....	59	568	26	2	1	4
27....	6	....	....	....	....	....	81	765	21	2	1	4
28....	6	....	....	....	....	....	84	740	17	2	1	3
29....	6	....	....	....	....	....	99	628	16	2	1	2
30....	6	....	....	....	....	....	70	592	13	1	1	3
31....	6	....	....	....	....	....	....	584	....	1	1	....
Total	224	....	....	....	....	....	1217	8808	4893	198	35	82
Mean.	7.23	....	....	....	....	....	40.6	284	163	6.39	1.13	2.73
Max...	10	....	....	....	....	....	99	765	632	15	2	7
Min...	4	....	....	....	....	....	17	53	13	1	1	1
Acre-ft.	445	....	....	....	....	....	2420	17500	9700	393	69	162

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Buzzard Creek Near Collbran for Year Ending Sept. 30, 1934.
Drainage Area, 139 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1.0	....	....	....	....	6	27	84	9.6	0.8	0.3	0.6
2....	1.0	....	....	....	....	6	25	70	7.3	0.5	0.2	0.6
3....	1.6	....	....	....	....	6	21	67	5.8	0.5	0.2	0.8
4....	2.2	....	....	....	....	6	14	66	5.3	0.5	0.3	0.8
5....	2.3	....	....	....	....	6	22	90	4.4	0.5	0.3	0.8
6....	3.3	....	....	....	....	6	15	97	4.2	0.4	0.2	0.8
7....	3.2	....	....	....	....	6	23	104	3.9	0.4	0.3	0.9
8....	3.0	....	....	....	....	6	35	104	3.3	0.5	0.3	0.8
9....	2.8	....	....	....	....	6	50	90	3.0	0.4	0.6	0.6
10....	2.4	....	....	....	....	6	43	90	2.6	0.4	1.2	0.4
11....	2.2	....	....	....	....	6.3	42	73	2.4	0.4	0.5	0.3
12....	2.0	....	....	....	....	6.3	51	73	2.1	0.4	0.3	0.3
13....	1.9	....	....	....	....	6.3	60	66	2.0	0.4	0.4	0.2
14....	....	....	....	....	....	6.3	62	59	1.7	0.4	0.4	0.2
15....	....	....	....	....	....	7	67	52	1.6	0.4	0.4	0.2
16....	....	....	....	....	....	12	62	45	1.6	0.2	0.4	0.2
17....	....	....	....	....	....	12	54	38	1.4	0.3	0.4	0.3
18....	....	....	....	....	....	12	54	30	1.3	0.3	0.4	0.2
19....	....	....	....	....	....	12	70	22	1.1	0.2	0.4	0.3
20....	....	....	....	....	....	12	69	22	1.0	0.3	0.4	0.5
21....	....	....	....	....	....	16	81	17	1.0	0.3	0.3	0.4
22....	....	....	....	....	....	16	91	17	0.8	0.3	0.3	0.4
23....	....	....	....	....	....	16	93	17	0.7	0.4	0.3	0.4
24....	....	....	....	....	43	19	88	14	1.1	0.4	0.3	0.4
25....	....	....	....	....	....	18	105	13	1.2	0.3	0.3	0.4
26....	....	....	....	....	....	21	101	13	1.0	0.3	0.3	0.4
27....	....	....	....	....	....	22	63	12	1.0	0.3	0.2	0.4
28....	....	....	....	....	....	29	66	11	1.1	0.3	0.2	0.4
29....	....	....	....	....	....	29	73	10	1.2	0.2	0.5	0.4
30....	....	....	....	....	....	28	76	11	1.0	0.2	0.3	0.4
31....	....	....	....	....	....	32	....	16	....	0.2	0.4	....
Total	....	....	....	....	....	398.2	1703	1493	75.7	11.4	11.3	13.8
Mean..	2.22	....	....	....	....	12.8	56.8	48.2	2.52	0.37	0.36	0.46
Max..	3.3	....	....	....	....	32	105	104	9.6	0.8	1.2	0.9
Min..	1.0	....	....	....	....	....	14	10	0.7	0.2	0.2	0.2
Acre-ft.	57	....	....	....	....	790	3380	2960	150	23	22	27

Discharge of Taylor River at Taylor Park for Year Ending Sept. 30, 1933.
Drainage Area, 121 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	59	....	....	....	....	....	....	....	756	157	105	45
2....	59	....	....	....	....	....	....	....	684	136	92	42
3....	59	....	....	....	....	....	....	....	566	148	79	39
4....	59	....	....	....	....	....	....	....	614	163	73	38
5....	59	....	....	....	....	....	....	....	636	157	77	38
6....	59	....	....	....	....	....	....	....	488	154	77	37
7....	59	....	....	....	....	....	....	....	477	173	75	34
8....	58	....	....	....	....	....	....	....	339	183	77	36
9....	58	....	....	....	....	....	....	....	426	142	73	49
10....	64	....	....	....	....	....	....	....	596	131	62	58
11....	56	34	....	....	....	....	....	....	644	134	58	66
12....	55	....	....	....	....	....	....	....	596	126	58	68
13....	52	....	....	....	24	31	....	....	500	108	56	62
14....	48	....	....	....	....	....	....	64	465	103	52	66
15....	45	....	51	....	....	....	49	80	500	103	53	59
16....	....	....	....	....	....	....	....	100	454	99	52	55
17....	....	....	....	26	....	....	....	120	431	101	49	49
18....	....	....	....	....	....	....	....	200	426	99	49	52
19....	....	....	....	....	....	....	....	250	431	92	65	53
20....	....	....	....	....	....	....	....	300	377	88	58	50
21....	....	....	....	....	....	....	....	442	334	97	55	50
22....	....	....	....	....	....	....	....	345	289	99	53	53
23....	36	....	....	....	....	....	....	228	249	94	52	53
24....	....	....	....	....	....	....	....	220	232	79	46	50
25....	....	....	....	....	....	....	....	236	220	75	45	49
26....	....	....	....	....	....	....	....	334	208	79	49	52
27....	....	....	....	....	....	....	....	448	200	80	56	53
28....	....	....	....	....	....	....	....	560	193	77	55	50
29....	....	....	....	....	....	....	....	572	176	77	50	49
30....	....	....	....	....	....	....	....	660	166	75	49	49
31....	....	....	....	....	....	....	....	788	....	88	46	....
Total	....	....	....	....	....	....	....	....	12673	3517	1896	1504
Mean..	45.8	33.8	42.6	24.3	24.1	32.3	46.6	121	422	113	61.2	50.1
Max..	....	....	....	....	....	....	....	....	756	183	105	68
Min..	....	....	....	....	....	....	....	....	166	75	45	34
Acre-ft.	2820	2010	2620	1490	1340	1990	2770	7440	25100	6950	3760	2980

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Taylor River at Taylor Park for Year Ending Sept. 30, 1934.
Drainage Area, 121 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	49	51	....	....	....	....	....	183	153	58	63	....
2....	56	44	....	....	....	....	....	165	151	58	62	....
3....	63	44	....	....	....	....	....	141	141	58	67	....
4....	58	37	....	....	....	....	....	156	139	62	65	....
5....	56	....	....	....	....	....	....	173	129	65	60	....
6....	54	....	....	....	....	....	....	186	120	60	63	....
7....	51	....	....	....	....	....	....	218	122	58	63	....
8....	51	....	....	....	....	....	....	218	108	63	72	....
9....	51	....	....	....	....	....	....	220	100	67	69	....
10....	51	....	....	....	....	....	....	253	100	63	65	....
11....	47	....	....	....	....	....	....	253	98	65	....	....
12....	45	....	....	....	....	....	....	258	91	63	....	....
13....	45	....	....	....	....	....	....	245	89	62	....	....
14....	53	....	....	....	....	....	....	226	85	58	....	....
15....	49	....	....	....	....	....	....	204	83	54	....	....
16....	47	....	....	....	....	....	....	210	85	53	....	....
17....	44	....	....	....	....	....	....	215	85	58	....	....
18....	45	....	....	....	37	....	....	210	78	56	....	....
19....	45	....	....	....	....	....	....	204	83	56	....	....
20....	47	....	39	....	....	....	....	207	83	58	....	....
21....	42	....	....	36	....	....	....	148	83	78	....	....
22....	44	....	....	....	....	....	....	153	71	94	....	....
23....	42	....	....	....	....	....	....	153	180	72	120	....
24....	39	....	....	....	....	....	....	158	168	80	127	....
25....	37	....	....	....	....	....	....	170	183	91	129	....
26....	36	33	....	....	....	....	....	160	170	74	134	....
27....	33	....	....	....	....	....	....	151	165	67	94	....
28....	36	....	....	....	....	....	....	156	168	65	83	....
29....	42	....	....	....	....	....	....	156	170	62	65	....
30....	42	....	....	....	....	....	....	173	193	60	62	....
31....	40	....	....	....	....	37	....	186	....	62	....	....
Total	1440	....	....	....	....	....	....	6118	2848	2243	....	....
Mean.	46.4	37	38	37	37	37	120	197	94.9	72.4	61	....
Max.	63	....	....	....	....	....	....	258	153	134	....	....
Min.	33	....	....	....	....	....	....	141	60	53	....	....
Acre-ft.	2850	2200	2340	2280	2050	2280	7140	12100	5650	4450	3750	....

Station Discontinued Aug. 12, 1934.

Discharge of Taylor River at Almont for Year Ending Sept. 30, 1933.
Drainage Area, 440 Square Miles. Altitude, 8,031 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	147	152	102	....	....	273	136	155	1630	434	279	128
2....	149	162	109	....	....	259	144	165	1540	398	264	120
3....	147	155	109	....	....	228	149	133	1450	404	212	116
4....	149	149	114	....	....	208	116	197	1400	447	201	116
5....	144	130	102	....	....	189	116	162	1560	447	208	116
6....	147	133	109	....	....	193	123	132	1300	447	205	116
7....	144	147	....	....	....	178	133	175	1300	542	212	116
8....	149	159	....	....	....	155	138	178	1000	556	212	116
9....	159	162	....	....	....	141	138	165	1080	434	212	128
10....	159	159	....	....	....	141	133	175	1400	374	197	152
11....	165	114	....	....	....	133	136	172	1510	392	178	197
12....	168	128	....	122	....	133	133	159	1430	351	175	224
13....	165	130	....	....	....	133	144	162	1280	295	165	201
14....	159	125	....	....	....	136	175	168	1170	279	155	212
15....	155	130	....	....	....	114	197	162	1270	273	152	193
16....	149	130	....	....	....	97	216	339	1180	242	155	165
17....	149	130	....	....	....	104	224	474	1140	246	159	149
18....	152	130	....	....	....	109	233	618	1100	237	168	152
19....	144	118	....	....	....	109	228	713	1100	220	201	155
20....	141	109	....	....	....	100	246	926	1030	212	175	144
21....	138	109	....	....	....	98	201	900	996	228	168	138
22....	149	125	....	....	....	89	162	750	943	224	162	162
23....	141	123	....	....	....	93	141	700	819	212	159	125
24....	147	120	....	....	....	107	136	613	779	189	149	138
25....	144	118	....	....	....	116	162	794	727	182	144	125
26....	168	120	....	....	....	120	172	843	661	182	144	125
27....	152	123	....	....	....	120	201	850	618	185	159	125
28....	155	125	....	....	....	114	224	1000	590	168	168	128
29....	147	120	....	....	....	116	250	1400	556	168	149	120
30....	159	116	....	....	....	125	197	1460	494	162	147	116
31....	155	....	....	....	....	133	....	1540	....	212	136	....
Total	4696	3951	....	....	....	4364	5104	16430	33053	9342	5570	4318
Mean.	151	132	102	119	113	141	170	530	1100	301	180	144
Max.	168	162	....	....	....	273	250	1540	1630	556	279	224
Min.	138	109	....	....	....	89	116	133	494	162	136	116
Acre-ft.	9280	7860	6270	7320	6280	8670	10100	32600	65500	18500	11100	8570

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Taylor River at Almont for Year Ending Sept. 30, 1934.
Drainage Area, 440 Square Miles. Altitude, 8,031 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	152	152	152	....	....	....	120	380	434	155	159	144
2....	155	136	144	....	....	....	125	338	380	152	149	138
3....	182	141	128	....	....	....	104	305	350	152	168	133
4....	189	144	133	....	....	....	93	295	326	159	168	128
5....	172	128	152	....	....	....	104	392	385	162	162	125
6....	172	133	152	....	....	....	93	440	280	147	159	125
7....	182	147	152	....	....	....	102	544	280	138	159	123
8....	175	130	....	....	....	....	118	572	260	152	168	141
9....	172	138	....	....	....	....	162	616	265	159	165	207
10....	172	136	....	....	....	....	222	735	251	152	168	196
11....	172	136	....	....	....	....	290	727	236	149	165	168
12....	172	133	....	....	....	....	344	735	227	155	165	159
13....	168	130	....	....	....	....	320	690	218	149	159	147
14....	172	114	....	....	....	....	251	572	218	136	200	147
15....	165	123	....	....	....	....	275	523	218	133	207	138
16....	155	128	....	....	....	....	204	551	211	133	182	136
17....	152	133	....	....	....	....	204	572	227	152	162	130
18....	155	138	....	....	....	....	192	544	200	147	172	125
19....	155	118	....	....	....	....	207	558	189	136	175	123
20....	152	130	....	....	....	....	241	502	185	138	200	136
21....	149	120	....	....	....	....	300	502	185	175	211	175
22....	147	116	....	....	....	....	320	440	178	256	182	141
23....	147	138	....	....	....	....	326	416	178	256	168	133
24....	149	141	....	....	....	....	332	398	182	270	155	185
25....	149	144	....	....	....	....	374	471	232	300	149	160
26....	149	130	....	....	....	....	392	428	196	320	147	162
27....	152	133	....	....	....	....	305	392	185	227	141	159
28....	147	149	....	....	....	....	338	428	175	196	136	144
29....	141	162	....	....	....	138	362	452	165	175	138	138
30....	141	155	....	....	....	125	374	509	159	165	138	133
31....	136	....	....	....	....	149	....	502	....	162	133	....
Total	4948	4046	....	....	....	....	7194	15529	7075	5458	5107	4401
Mean.	160	135	130	125	130	140	240	501	236	176	165	147
Max..	189	162	....	....	....	....	392	735	434	320	211	207
Min..	136	114	....	....	....	....	93	295	159	133	133	123
Acre-ft.	9840	8030	7990	7690	7220	8610	14300	30800	14000	10800	10100	8750

Discharge of Texas Creek at Taylor Park for Year Ending Sept. 30, 1933.
Drainage Area, 36 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	....	....	....	....	....	....	....	272	114	41	14
2....	13	....	....	....	....	....	....	....	250	106	39	14
3....	13	....	....	....	....	....	....	....	210	110	37	13
4....	13	....	....	....	....	....	....	....	228	118	33	12
5....	12	....	....	....	....	....	....	....	252	117	35	12
6....	12	....	....	....	....	....	....	....	191	123	34	12
7....	12	....	....	....	....	....	....	....	164	208	37	12
8....	11	....	....	....	....	....	....	....	120	175	39	12
9....	11	....	....	....	....	....	....	....	164	128	33	15
10....	12	....	....	....	....	....	....	....	270	107	31	25
11....	13	....	....	....	....	....	....	....	292	103	28	42
12....	13	....	....	....	....	....	....	....	278	98	26	46
13....	13	....	....	....	9	10	....	....	228	82	23	38
14....	13	....	....	....	....	....	....	14	200	76	22	39
15....	13	....	7	....	....	....	....	....	238	70	21	33
16....	....	....	....	....	....	....	....	....	222	63	20	28
17....	....	....	....	8	....	....	....	....	225	61	18	24
18....	....	....	....	....	....	....	....	....	188	56	17	24
19....	....	....	....	....	....	....	....	....	191	52	25	25
20....	....	....	....	....	....	....	1194	....	177	50	23	22
21....	....	....	....	....	....	....	....	191	191	55	22	20
22....	....	....	....	....	....	....	....	175	175	55	20	23
23....	10	....	....	....	....	....	....	145	145	51	19	21
24....	....	....	....	....	....	....	....	148	148	42	17	20
25....	....	....	....	....	....	....	....	145	145	41	16	18
26....	....	....	....	....	....	....	....	146	146	39	17	17
27....	....	....	....	....	....	....	....	137	137	37	20	16
28....	....	....	....	....	....	....	....	132	132	33	21	15
29....	....	....	....	....	....	....	....	127	127	32	17	14
30....	....	....	....	....	....	....	....	238	117	29	16	14
31....	....	....	....	....	....	....	....	282	....	35	15	....
Total	....	....	....	....	....	....	....	....	5823	2466	782	640
Mean.	11.7	7.17	7	8	9	10	14	119	194	79.5	25.2	21.3
Max..	....	....	....	....	....	....	....	....	292	208	41	46
Min..	....	....	....	....	....	....	....	....	117	29	15	12
Acre-ft.	719	427	430	492	500	615	833	7320	11500	4890	1550	1270

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Texas Creek at Taylor Park for Year Ending Sept. 30, 1934.
Drainage Area, 36 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	13	10	....	....	....	....	....	79	113	29	22	....
2....	14	13	....	....	....	....	....	68	98	28	21	....
3....	17	10	....	....	....	....	....	61	81	28	30	....
4....	19	....	....	....	....	....	....	56	76	29	26	....
5....	17	....	....	....	....	....	....	62	75	30	22	....
6....	15	....	....	....	....	....	....	65	74	27	24	....
7....	14	....	....	....	....	....	....	65	71	26	25	....
8....	14	....	....	....	....	....	....	70	57	29	26	....
9....	14	....	....	....	....	....	....	80	60	27	27	....
10....	14	....	....	....	....	....	....	100	61	26	26	....
11....	13	....	....	....	....	....	....	115	58	29	25	....
12....	14	....	....	....	....	....	....	125	60	29	24	....
13....	14	....	....	....	....	....	....	133	56	24	....	....
14....	13	....	....	....	....	....	....	115	53	22	....	....
15....	13	....	....	....	....	....	....	128	48	21	....	....
16....	13	....	....	....	....	....	....	156	45	21	....	....
17....	12	....	....	....	....	....	....	156	41	22	....	....
18....	13	....	....	....	....	....	....	144	39	24	....	....
19....	13	....	....	....	....	....	....	141	40	21	....	....
20....	13	....	15	....	....	9	....	133	37	21	....	....
21....	13	....	....	16	....	....	63	124	36	23	....	....
22....	11	....	....	....	....	....	73	110	33	26	....	....
23....	10	....	....	....	....	....	69	100	33	27	....	....
24....	10	....	....	....	....	....	75	96	37	47	....	....
25....	10	....	....	....	....	....	79	137	47	64	....	....
26....	9	11	....	....	....	....	82	112	38	58	....	....
27....	9	....	....	....	....	....	63	98	34	40	....	....
28....	10	....	....	....	....	....	64	129	33	31	....	....
29....	8	....	....	....	....	....	75	144	33	27	....	....
30....	10	....	....	....	....	....	76	150	31	25	....	....
31....	9	....	....	....	....	....	....	141	....	24	....	....
Total	391	....	....	....	....	....	....	3393	1598	905	....	....
Mean...	12.6	11	14	16	10	10	50	109	53.3	29.2	23	....
Max....	19	....	....	....	....	....	....	156	113	64	....	....
Min....	8	....	....	....	....	....	....	56	31	21	....	....
Acre-ft.	775	655	861	984	555	615	2980	6700	3170	1800	1410	....

Station Discontinued Aug. 12, 1934.

Discharge of Willow Creek at Taylor Park for Year Ending Sept. 30, 1933.
Drainage Area, 47 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	....	....	....	....	....	....	....	160	53	28	20
2....	15	....	....	....	....	....	....	....	150	52	26	20
3....	16	....	....	....	....	....	....	....	139	52	24	20
4....	16	....	....	....	....	....	....	....	155	55	25	18
5....	16	....	....	....	....	....	....	....	150	56	27	18
6....	16	....	....	....	....	....	....	....	152	53	30	19
7....	17	....	....	....	....	....	....	....	149	58	35	19
8....	18	....	....	....	....	....	....	....	111	64	43	18
9....	19	....	....	....	....	....	....	....	132	52	34	21
10....	20	18	....	....	....	....	....	....	146	40	30	26
11....	20	....	....	....	....	....	....	....	149	33	30	30
12....	21	....	....	....	21	8	....	....	153	26	30	32
13....	21	....	....	....	....	....	....	16	136	28	28	34
14....	22	....	....	....	....	....	7	....	123	27	26	37
15....	22	....	....	....	....	....	....	....	129	27	26	30
16....	23	....	13	14	....	....	....	....	127	26	25	28
17....	....	....	....	....	....	....	....	....	132	26	25	26
18....	....	....	....	....	....	....	....	....	119	25	29	26
19....	....	....	....	....	....	....	....	....	115	24	30	26
20....	....	....	....	....	....	....	....	....	107	24	28	26
21....	....	....	....	....	....	....	....	93	111	26	27	27
22....	....	....	....	....	....	....	....	58	117	23	27	29
23....	18	....	....	....	....	....	....	43	105	20	26	26
24....	....	....	....	....	....	....	....	50	103	18	25	24
25....	....	....	....	....	....	....	....	47	95	19	24	22
26....	....	....	....	....	....	....	....	68	81	20	25	24
27....	....	....	....	....	....	....	....	92	77	20	27	24
28....	....	....	....	....	....	....	....	107	72	18	24	23
29....	....	....	....	....	....	....	....	112	74	18	22	22
30....	....	....	....	....	....	....	....	134	56	20	23	22
31....	....	....	....	....	....	....	....	155	....	21	21	....
Total	....	....	....	....	....	....	....	....	3625	1024	850	737
Mean...	19.1	17.1	13.8	14.7	13.6	8.50	8.03	48.4	121	33.0	27.4	24.6
Max....	....	....	....	....	....	....	....	....	160	64	43	37
Min....	....	....	....	....	....	....	....	....	56	18	21	18
Acre-ft.	1170	1020	848	904	755	523	478	2980	7200	2030	1680	1460

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Willow Creek at Taylor Park for Year Ending Sept. 30, 1934.
Drainage Area, 47 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	21	25	....	....	....	....	....	43	32	11	14	....
2....	24	29	....	....	....	....	....	43	29	10	13	....
3....	28	28	....	....	....	....	....	41	28	10	15	....
4....	29	28	....	....	....	....	....	47	28	12	16	....
5....	28	28	....	....	....	....	....	50	26	11	14	....
6....	26	....	....	....	....	....	....	42	24	11	15	....
7....	26	....	....	....	....	....	....	52	22	18	17	....
8....	26	....	....	....	....	....	....	52	21	20	17	....
9....	24	....	....	....	....	....	....	56	20	18	16	....
10....	25	....	....	....	....	....	....	66	19	18	15	....
11....	26	....	....	....	....	....	....	66	17	19	16	....
12....	25	....	....	....	....	....	....	65	18	15	14	....
13....	25	....	....	....	....	....	....	60	18	12	....	....
14....	26	....	....	....	....	....	....	56	17	12	....	....
15....	21	....	....	....	....	....	25	52	17	12	....	....
16....	20	....	....	....	....	....	24	53	18	12	....	....
17....	20	....	....	....	....	....	23	53	18	14	....	....
18....	20	....	....	....	....	....	25	50	16	14	....	....
19....	20	....	15	14	10	12	30	49	15	14	....	....
20....	20	....	....	....	....	....	32	38	15	15	....	....
21....	20	....	....	....	....	....	33	39	13	17	....	....
22....	18	....	....	....	....	....	33	40	12	18	....	....
23....	18	....	....	....	....	....	32	39	12	19	....	....
24....	21	....	....	....	....	....	32	36	15	21	....	....
25....	23	18	....	....	....	....	38	36	17	21	....	....
26....	21	....	....	....	....	....	37	36	14	20	....	....
27....	21	....	....	....	....	....	34	40	13	18	....	....
28....	21	....	....	....	....	....	38	40	12	16	....	....
29....	24	....	....	....	....	....	42	40	11	14	....	....
30....	21	....	....	....	....	....	42	42	12	13	....	....
31....	21	....	....	....	....	....	....	40	....	14	....	....
Total	709	....	....	....	....	....	....	1462	549	469	....	....
Mean...	22.9	22	16	15	11	12	27.3	47.2	18.3	15.1	12.7	....
Max....	29	....	....	....	....	....	....	66	32	21	....	....
Min....	18	....	....	....	....	....	....	36	11	10	....	....
Acre-ft.	1410	1310	984	922	611	738	1620	2900	1090	928	781	....

Discharge of Henson Creek Near Lake City for Year Ending Sept. 30, 1933.
Drainage Area, 82 Square Miles. Altitude, 8,750 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	38	37	17	20	17	16	18	30	810	254	111	44
2....	40	35	17	20	17	16	18	30	792	226	108	42
3....	42	35	17	20	17	16	18	30	671	220	100	39
4....	40	35	17	20	17	16	18	30	698	220	94	38
5....	38	35	17	20	17	16	18	30	608	226	100	36
6....	38	24	17	20	12	15	18	35	475	267	98	36
7....	38	24	17	20	12	15	18	35	344	301	100	35
8....	38	24	17	20	12	15	18	35	374	270	100	37
9....	38	24	17	20	12	15	18	35	635	226	109	40
10....	38	24	17	20	12	15	18	35	842	223	94	56
11....	38	26	16	21	13	18	16	42	887	235	84	64
12....	37	26	16	21	14	18	16	42	802	223	79	63
13....	36	26	16	21	15	18	16	42	730	205	75	56
14....	35	26	16	21	15	18	16	48	712	191	70	52
15....	34	26	16	21	15	18	20	68	730	167	66	48
16....	33	22	15	21	15	17	20	88	698	159	64	45
17....	33	22	15	21	15	17	20	108	653	145	62	42
18....	33	22	15	21	15	17	20	188	599	132	64	45
19....	33	22	15	21	15	17	20	280	594	123	90	43
20....	33	18	15	21	15	17	20	422	550	121	70	39
21....	34	18	20	22	14	18	22	426	466	114	68	44
22....	35	18	20	22	14	18	22	311	454	109	64	45
23....	33	18	20	22	14	18	22	183	450	103	60	44
24....	33	18	20	22	14	18	22	170	386	98	57	42
25....	34	18	20	22	13	18	22	248	390	94	55	40
26....	35	18	20	18	14	20	25	355	463	92	52	38
27....	39	18	20	18	14	23	28	450	333	88	57	35
28....	39	18	20	16	14	24	28	496	326	83	50	36
29....	37	18	21	18	....	24	28	554	304	79	48	35
30....	35	18	20	17	....	24	28	648	290	86	46	34
31....	34	....	20	17	....	24	....	734	....	111	46	....
Total	1121	713	546	624	403	559	611	6228	17066	5191	2341	1293
Mean...	36.2	23.8	17.6	20.1	14.4	18.0	20.4	201	569	167	75.5	43.1
Max....	42	37	....	....	....	....	....	734	887	301	111	64
Min....	33	18	....	....	....	....	....	30	290	79	46	34
Acre-ft.	2230	1420	1080	1240	800	1110	1210	12400	33900	10300	4640	2560

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Henson Creek Near Lake City for Year Ending Sept. 30, 1934.
Drainage Area, 82 Square Miles. Altitude, 8,750 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	34	32	....	....	....	....	30	204	196	57	40	44
2....	34	30	....	....	....	....	30	172	194	56	38	39
3....	38	30	....	....	....	....	30	136	172	55	37	36
4....	37	29	....	....	....	....	32	125	161	55	38	36
5....	40	31	....	....	....	....	32	136	161	53	38	34
6....	48	29	....	....	....	....	32	194	152	49	44	34
7....	46	32	....	....	....	....	34	267	119	49	55	32
8....	45	31	....	....	....	....	34	305	116	49	81	35
9....	44	31	....	....	....	....	36	383	126	48	107	41
10....	43	30	....	14	16	....	41	451	132	47	81	42
11....	42	26	....	....	....	....	55	439	134	47	68	42
12....	40	26	....	....	....	....	70	383	138	47	62	41
13....	39	26	....	....	....	....	68	361	130	43	59	40
14....	38	26	....	....	....	....	61	321	119	42	61	38
15....	36	26	....	....	....	....	61	321	107	40	62	36
16....	35	26	....	....	....	....	56	372	96	42	74	34
17....	34	26	....	....	....	....	55	383	90	41	72	32
18....	33	26	....	....	....	....	54	379	90	40	73	32
19....	32	26	....	....	....	....	67	347	89	39	70	32
20....	32	26	....	....	....	....	90	334	86	43	88	34
21....	32	26	....	....	....	....	110	334	82	52	77	35
22....	31	22	....	....	14	....	121	272	79	55	67	35
23....	31	22	....	....	....	....	130	219	76	58	61	36
24....	31	22	....	....	....	....	161	250	78	55	57	59
25....	31	22	....	....	....	....	182	275	72	50	56	53
26....	31	20	....	14	....	....	170	296	70	50	55	47
27....	32	20	....	....	....	....	154	302	68	52	52	44
28....	34	20	....	....	....	30	152	308	65	45	48	42
29....	33	20	....	....	....	....	168	287	61	55	48	41
30....	32	20	....	....	....	....	196	247	59	42	48	42
31....	32	....	....	....	....	....	....	194	....	39	45	....
Total	1120	775	....	....	....	....	2512	8997	3318	1495	1862	1168
Mean...	36.1	25.8	18.0	14.0	15.0	20.0	83.7	290	111	48.2	60.1	38.9
Max....	48	32	....	....	....	....	196	451	196	58	107	59
Min....	31	....	....	....	....	....	30	125	59	39	37	32
Acre-ft.	2220	1540	1110	861	833	1230	4980	17850	6580	2970	3690	2320

Discharge of Lake Fork at Lake City for Year Ending Sept. 30, 1933.
Drainage Area, 123 Square Miles. Altitude, 8,700 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	24	20	18	20	15	14	14	25	655	310	95	44
2....	24	20	18	20	15	14	14	26	694	288	95	43
3....	24	20	18	20	15	14	14	28	576	265	93	41
4....	25	20	18	20	15	14	14	28	531	262	89	40
5....	25	20	18	20	15	14	14	29	565	278	91	39
6....	24	17	18	20	11	12	15	30	477	310	95	38
7....	24	17	18	20	11	12	15	30	375	368	108	37
8....	24	17	18	20	11	12	15	36	296	351	110	36
9....	24	17	18	20	11	12	15	31	375	317	104	36
10....	23	17	18	20	11	12	15	31	589	304	97	37
11....	23	18	17	20	11	14	16	31	691	291	88	42
12....	22	18	17	20	12	14	16	32	704	310	79	49
13....	22	18	17	20	12	14	16	33	643	281	76	54
14....	22	18	17	20	12	14	17	33	633	243	70	55
15....	24	18	17	20	12	14	18	40	619	208	65	54
16....	21	20	16	20	12	13	20	52	606	190	62	53
17....	20	20	16	20	12	13	20	62	623	181	58	53
18....	20	20	16	20	12	13	20	72	592	164	57	52
19....	19	20	16	20	12	13	20	132	558	151	59	53
20....	18	19	16	20	12	13	20	241	558	139	62	52
21....	18	19	18	21	11	12	20	299	541	134	59	49
22....	18	19	18	21	11	12	20	292	500	125	58	51
23....	18	19	18	21	11	12	20	226	483	114	57	49
24....	18	19	18	21	11	12	20	175	453	102	55	47
25....	19	19	18	21	12	12	20	165	439	97	54	46
26....	20	19	19	18	13	12	21	214	436	91	52	43
27....	20	19	19	16	13	14	22	328	402	88	51	43
28....	20	19	19	15	13	14	25	405	385	79	49	42
29....	21	19	19	21	....	14	22	436	368	74	47	41
30....	21	19	20	18	....	14	23	497	344	70	46	40
31....	21	....	20	18	....	14	....	576	....	79	45	....
Total	666	564	551	611	344	407	541	4635	15711	6264	2226	1359
Mean...	21.5	18.8	17.8	19.7	12.3	13.1	18.0	150	524	202	71.8	45.3
Max....	25	....	....	....	....	....	....	576	704	368	110	55
Min....	18	....	....	....	....	....	....	25	296	70	45	36
Acre-ft.	1320	1120	1090	1210	683	806	1070	9220	31200	12400	4410	2700

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Lake Fork at Lake City for Year Ending Sept. 30, 1934.
Drainage Area, 123 Square Miles. Altitude, 8,700 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	38	36	.....	.....	.....	.....	22	205	197	57	40	40
2.....	38	36	.....	.....	.....	.....	22	188	188	54	40	40
3.....	38	36	.....	.....	.....	.....	24	151	180	52	38	39
4.....	40	35	.....	.....	.....	.....	24	131	160	51	38	38
5.....	40	34	.....	.....	.....	.....	26	121	146	51	38	37
6.....	44	34	.....	.....	.....	.....	26	133	151	49	38	36
7.....	46	34	.....	.....	.....	.....	28	191	129	47	38	36
8.....	46	34	.....	.....	.....	.....	28	273	115	47	40	36
9.....	48	33	.....	.....	.....	.....	30	329	111	44	46	37
10.....	48	33	.....	26	23	.....	33	412	113	45	49	37
11.....	48	31	.....	.....	.....	.....	34	440	117	44	52	36
12.....	48	31	.....	.....	.....	.....	37	412	121	43	50	36
13.....	48	31	.....	.....	.....	.....	49	370	125	43	50	36
14.....	48	31	.....	.....	.....	.....	64	329	117	42	51	36
15.....	47	31	.....	.....	.....	.....	69	323	107	40	54	34
16.....	45	31	.....	.....	.....	.....	71	346	100	40	54	33
17.....	43	31	.....	.....	.....	.....	73	356	93	40	57	33
18.....	42	31	.....	.....	.....	.....	72	363	87	40	60	32
19.....	41	31	.....	.....	.....	.....	69	370	87	39	59	32
20.....	39	31	.....	.....	.....	.....	76	316	83	38	58	33
21.....	36	29	.....	.....	.....	.....	91	296	81	38	58	34
22.....	37	29	.....	.....	13	.....	117	267	78	40	56	34
23.....	37	29	.....	.....	.....	.....	131	229	76	42	54	35
24.....	37	29	.....	.....	.....	.....	153	197	75	46	51	40
25.....	37	29	.....	.....	.....	.....	220	217	77	45	49	41
26.....	37	29	.....	16	.....	.....	290	244	71	48	47	40
27.....	37	29	.....	.....	.....	.....	238	277	66	47	45	40
28.....	37	29	.....	.....	.....	18	197	290	63	44	44	40
29.....	36	29	.....	.....	.....	19	186	306	61	42	43	40
30.....	37	29	.....	.....	.....	.....	186	296	59	41	42	40
31.....	36	.....	.....	.....	.....	.....	.....	238	.....	40	42	.....
Total	1279	945	.....	.....	.....	.....	2686	8616	3234	1379	1481	1101
Mean...	41.3	31.5	26.0	22.0	20.0	17.0	89.5	278	108	44.5	47.8	36.7
Max....	48	36	.....	.....	.....	.....	290	440	197	57	60	41
Min....	36	.....	.....	.....	.....	.....	22	121	59	38	38	32
Acre-ft.	2540	1870	1600	1350	1110	1050	5330	17090	6410	2740	2940	2180

Discharge of North Fork of Gunnison River Near Somerset for Year Ending Sept. 30, 1934.
Drainage Area, 521 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	170	742	392	85	47	47
2.....	188	734	361	85	50	44
3.....	170	709	314	81	62	43
4.....	146	742	277	83	53	40
5.....	146	894	262	83	52	41
6.....	123	1040	248	77	52	41
7.....	139	1110	237	69	58	39
8.....	182	1120	227	67	62	58
9.....	234	1180	220	65	60	85
10.....	285	1260	207	65	67	70
11.....	382	1300	197	64	67	56
12.....	555	1270	188	62	56	50
13.....	660	1150	176	62	56	46
14.....	629	981	167	62	79	40
15.....	645	866	151	59	81	37
16.....	606	866	137	58	83	33
17.....	569	857	134	53	76	34
18.....	621	838	126	54	81	41
19.....	701	812	121	52	72	28
20.....	785	768	115	53	76	37
21.....	885	709	111	58	72	54
22.....	894	621	119	62	69	41
23.....	866	562	117	60	64	37
24.....	971	520	126	65	59	37
25.....	1030	514	139	65	52	53
26.....	942	477	121	92	52	65
27.....	759	470	111	64	46	59
28.....	759	464	102	54	46	60
29.....	742	483	90	50	52	59
30.....	167	742	637	87	47	52	52
31.....	200	.....	458	.....	47	47	.....
Total	16526	25154	5380	2003	1901	1427
Mean...	551	811	179	64.6	61.3	47.6
Max....	1030	1300	392	92	83	85
Min....	123	458	87	47	46	28
Acre-ft.	32800	49900	10700	3970	3770	2830

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Gunnison River and Redlands Power Canal Near Grand Junction for Year Ending Sept. 30, 1934. Drainage Area, 8,020 Square Miles. Altitude, 4,573 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	825	379	1630	2140	155	145	149
2....	825	547	1700	1800	154	155	149
3....	825	361	1870	1600	144	145	159
4....	825	434	2070	1460	144	250	164
5....	825	611	2170	1330	134	258	151
6....	750	483	2070	1090	174	116	145
7....	750	423	2280	723	174	116	126
8....	750	351	2770	979	164	135	216
9....	750	311	3190	669	144	122	249
10....	750	344	3490	617	134	237	358
11....	660	449	4110	451	134	156	318
12....	659	686	4190	403	134	126	288
13....	659	1400	4190	306	134	117	295
14....	659	1680	4030	243	134	126	295
15....	659	1760	3840	255	114	126	298
16....	702	1680	2720	233	114	261	322
17....	659	1610	2640	233	115	188	330
18....	764	1540	2640	223	115	138	324
19....	764	1470	2640	223	115	126	364
20....	781	1470	2520	213	106	139	378
21....	924	1540	2400	204	360	188	324
22....	979	1870	2280	204	407	158	260
23....	946	1950	2070	191	209	138	298
24....	702	1950	1870	181	178	148	319
25....	762	....	686	2170	1630	216	171	138	233
26....	911	563	2280	1610	260	186	129	629
27....	563	2280	1680	272	205	129	338
28....	500	1950	1720	237	185	138	261
29....	425	1700	1760	195	165	120	145
30....	397	1700	1850	165	145	120	120
31....	356	....	2500	....	155	149	....
Total	21882	37379	78130	17316	5102	4738	8005
Mean...	750	800	706	1246	2520	577	165	153	267
Max....	979	2280	4190	2140	407	261	629
Min....	356	311	1610	165	106	116	120
Acre-ft.	46120	44430	43400	74140	155000	34350	10120	9400	15880

Discharge of Surface Creek at Cedaredge for Year Ending Sept. 30, 1933. Drainage Area, 43 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	18	117	18	24	16
2....	24	100	15	25	17
3....	19	88	24	23	18
4....	19	100	22	14	14
5....	21	108	19	9	12
6....	22	98	26	8	14
7....	2	....	19	75	29	9	12
8....	20	94	43	11	12
9....	16	96	38	8	20
10....	15	92	40	6	21
11....	14	84	38	6	27
12....	12	83	28	5	16
13....	13	83	26	5	11
14....	14	86	21	9	11
15....	17	84	14	5	8
16....	35	74	15	9	6
17....	86	67	12	11	4
18....	121	67	16	17	9
19....	144	67	19	23	8
20....	170	70	26	18	9
21....	147	62	24	18	27
22....	102	57	21	26	19
23....	4	98	50	22	13
24....	5	110	44	22	10
25....	9	132	43	20	11
26....	9	137	35	21	11
27....	8	149	30	36	9
28....	32	147	32	46	6
29....	34	135	26	36	3
30....	18	130	24	24	3
31....	115	....	32	23	....
Total	2221	2136	807	498	377
Mean...	2.5	6.5	71.6	71.2	26.0	16.1	12.6
Max....	170	117	46	28	27
Min....	12	24	12	5	3
Acre-ft.	154	387	4400	4240	1600	990	750

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Surface Creek at Cedaredge for Year Ending Sept. 30, 1934.
Drainage Area, 43 Square Miles. Altitude, 7,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3	...	...	...	...	...	12	60	13	9	14	4
2....	2	...	...	...	...	...	16	62	13	10	15	3
3....	3	...	...	...	...	...	11	56	13	8	13	3
4....	4	...	...	...	...	...	9	59	13	9	11	3
5....	6	...	...	...	...	...	9	67	12	8	10	3
6....	7	...	...	...	...	...	9	54	16	8	9	3
7....	5	...	...	...	...	...	10	51	16	8	7	2
8....	...	...	...	...	...	...	12	47	14	6	10	5
9....	...	...	...	...	...	...	15	57	11	8	12	5
10....	...	...	...	...	...	...	16	60	9	14	11	4
11....	...	...	...	...	...	...	23	56	7	17	9	4
12....	...	...	...	...	...	...	30	62	8	14	8	3
13....	...	...	...	...	...	...	28	57	6	11	7	4
14....	...	...	...	...	...	...	44	51	9	10	11	4
15....	...	...	...	...	...	...	57	48	10	9	10	4
16....	...	...	...	...	...	...	51	46	12	9	10	3
17....	...	...	...	...	...	...	48	40	11	9	12	3
18....	...	...	...	...	...	...	64	34	11	7	11	3
19....	...	...	...	...	...	...	70	30	8	4	9	3
20....	...	...	...	...	...	...	74	29	7	6	9	3
21....	...	...	...	...	...	...	70	25	7	8	9	3
22....	...	...	...	...	...	...	65	27	19	7	10	3
23....	...	...	...	...	...	...	64	28	18	6	8	3
24....	...	...	...	...	...	...	74	24	22	5	6	3
25....	...	...	...	...	...	...	70	19	15	3	4	3
26....	...	...	...	...	...	...	64	17	15	3	4	4
27....	...	...	...	...	...	...	57	16	8	4	4	3
28....	...	...	...	...	...	...	57	16	8	7	5	3
29....	...	...	...	...	...	5	60	15	8	9	10	3
30....	...	...	...	...	...	4	62	15	8	9	6	4
31....	...	...	...	...	...	16	...	14	...	14	5	...
Total	...	...	...	...	...	...	1251	1242	347	259	280	101
Mean...	3.0	...	...	...	...	...	41.7	40.1	11.6	8.4	9.9	3.4
Max....	...	...	...	...	...	...	74	67	22	17	15	5
Min....	...	...	...	...	...	...	9	14	6	3	4	2
Acre-ft.	184	...	...	...	...	...	2480	2470	690	516	553	202

Discharge of Uncompahgre River Near Colona for Year Ending Sept. 30, 1933.
Drainage Area, 419 Square Miles. Altitude, 6,399 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	67	79	...	...	...	...	175	140	1410	360	63	80
2....	67	79	...	...	...	...	190	170	1390	330	62	73
3....	67	79	...	...	...	...	215	178	1040	345	61	60
4....	66	79	...	...	...	...	200	224	1050	370	61	56
5....	64	71	...	...	...	...	158	240	1120	378	90	55
6....	66	71	...	...	...	...	132	228	1060	360	101	55
7....	67	77	...	...	...	...	129	175	788	480	197	57
8....	67	67	...	...	...	...	130	219	642	530	220	59
9....	66	68	...	...	...	...	127	172	988	437	275	92
10....	74	70	...	...	...	...	123	160	1250	433	205	285
11....	73	63	...	...	...	...	104	184	1400	448	174	295
12....	74	63	...	...	...	...	104	158	1260	340	144	254
13....	68	...	...	...	...	...	96	140	1010	330	115	230
14....	67	...	...	...	...	...	104	130	1050	292	102	254
15....	67	...	...	...	...	...	104	144	1190	228	95	190
16....	67	...	...	...	...	...	120	186	1190	195	80	180
17....	64	...	...	...	...	...	130	440	1110	228	74	172
18....	67	...	...	...	...	...	175	664	1070	210	74	210
19....	67	...	...	...	...	...	195	858	1050	172	172	180
20....	67	...	...	...	...	...	186	1010	940	165	115	170
21....	67	...	...	...	...	...	130	1010	854	165	100	315
22....	88	...	...	...	...	...	130	730	700	140	106	335
23....	96	...	...	...	...	...	127	420	688	115	100	240
24....	96	...	...	...	...	...	132	508	630	90	97	200
25....	96	...	...	...	...	...	145	540	626	80	96	183
26....	106	...	...	...	...	...	144	740	580	75	95	175
27....	104	...	...	...	...	...	180	900	508	70	97	172
28....	100	...	...	...	...	...	215	1020	470	65	92	158
29....	92	...	...	...	...	...	195	1100	460	60	86	150
30....	88	...	...	...	...	...	150	1210	420	55	82	144
31....	82	...	...	...	...	...	...	1360	...	62	83	...
Total	2367	...	...	...	...	...	4445	15358	27944	7608	3518	5079
Mean...	76.4	...	...	...	...	...	148	495	931	245	113	169
Max....	106	...	...	...	...	...	215	1360	1410	530	275	335
Min....	64	...	...	...	...	...	96	130	420	55	61	55
Acre-ft.	4700	...	...	...	...	...	8810	30400	55400	15100	6950	10100

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Uncompahgre River Near Colona for Year Ending Sept. 30, 1934.
Drainage Area, 419 Square Miles. Altitude, 6,399 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	142	126	98	....	....	....	98	398	300	89	34	68
2....	140	134	95	....	....	....	110	354	292	84	35	62
3....	160	130	90	....	....	....	106	276	276	85	37	58
4....	170	118	98	....	....	....	100	262	238	84	43	55
5....	398	106	97	....	....	....	114	296	220	85	40	52
6....	228	103	88	....	....	....	112	358	248	75	41	51
7....	176	100	97	....	....	....	128	494	200	75	98	50
8....	170	98	98	....	....	....	160	568	180	75	82	90
9....	165	97	98	....	....	....	196	602	186	73	64	135
10....	162	96	....	....	....	....	230	700	186	76	75	84
11....	155	96	....	....	....	....	276	650	184	78	61	70
12....	170	96	....	....	....	....	336	530	177	81	50	67
13....	165	96	....	....	....	....	328	522	180	76	49	62
14....	173	97	....	....	....	....	332	500	160	74	77	52
15....	162	97	....	....	....	....	310	480	155	72	105	50
16....	148	96	....	....	....	....	276	530	150	71	114	48
17....	142	97	....	....	....	....	256	530	136	68	94	47
18....	140	98	....	....	....	....	246	513	124	65	92	47
19....	134	97	....	....	....	....	280	452	116	60	156	48
20....	132	97	....	....	....	....	318	430	112	58	193	54
21....	129	96	....	....	....	....	358	470	118	73	145	72
22....	125	96	....	....	....	....	376	434	119	71	110	48
23....	120	96	....	....	....	....	376	328	121	45	100	55
24....	120	97	....	....	....	....	398	328	132	40	80	95
25....	118	95	....	....	....	....	460	368	126	40	76	91
26....	118	96	....	....	....	90	401	402	118	41	74	88
27....	118	97	....	....	....	90	340	470	110	40	66	85
28....	110	97	....	....	....	95	358	504	106	39	64	80
29....	106	97	....	....	....	95	336	500	100	35	97	82
30....	106	98	....	....	....	102	354	500	94	36	78	79
31....	103	....	....	....	....	108	....	344	....	35	74	....
Total	4705	3040	....	....	....	....	8069	14093	4964	1999	2504	2025
Mean.	152	101	....	....	....	....	269	455	165	64.5	80.8	67.5
Max...	398	134	....	....	....	....	460	700	300	89	193	135
Min...	103	95	....	....	....	....	98	262	94	35	34	47
Acre-ft.	9330	6030	....	....	....	....	16000	27950	9850	3960	4970	4020

Discharge of Kannah Creek Below Intake Near Whitewater for Year Ending Sept. 30, 1933.
Drainage Area, 38 Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	....	....	....	....	....	....	10	472	24	41	14
2....	10	....	....	....	....	....	....	12	324	24	33	13
3....	10	....	....	....	....	....	....	12	249	25	28	15
4....	11	....	....	....	....	....	....	13	282	26	25	11
5....	11	....	....	7	....	....	5	13	312	27	27	7
6....	10	....	4	....	....	....	....	14	288	27	21	7
7....	10	....	....	....	....	....	....	10	208	44	18	6
8....	10	....	....	....	....	....	....	12	170	43	17	5
9....	10	....	....	....	....	....	....	11	161	28	16	11
10....	10	....	....	....	....	....	....	10	153	31	14	7
11....	10	....	....	....	....	....	....	10	133	28	16	6
12....	19	....	....	....	....	....	....	10	120	36	15	7
13....	17	....	....	....	....	....	....	8	100	38	18	9
14....	8	....	....	....	....	....	....	8	92	36	22	10
15....	8	....	....	....	....	....	....	10	87	40	21	9
16....	9	....	....	....	....	....	6	15	75	42	28	7
17....	9	....	....	....	....	....	8	29	84	56	25	5
18....	10	....	....	....	....	....	12	42	86	52	24	10
19....	10	....	....	....	....	....	10	60	70	49	24	6
20....	10	....	....	....	....	....	7	88	63	43	22	4
21....	11	....	....	....	....	....	5	116	60	49	32	12
22....	15	....	....	....	....	....	5	92	52	46	28	12
23....	12	....	....	....	....	....	6	78	43	43	20	10
24....	11	....	....	....	....	....	5	88	43	42	18	7
25....	....	....	....	....	....	....	7	141	38	40	16	6
26....	....	....	....	....	....	....	8	205	34	33	27	5
27....	....	....	....	....	....	....	8	303	32	34	23	5
28....	....	....	....	....	2	....	13	337	31	33	21	4
29....	....	....	....	....	....	....	13	408	27	34	22	4
30....	....	....	....	....	....	....	10	472	24	34	24	4
31....	....	....	....	....	....	....	....	440	....	31	18	....
Total	....	....	....	....	....	....	....	3077	3913	1138	704	238
Mean.	10.5	....	....	....	....	....	6.77	99.3	130	36.7	22.7	7.93
Max...	....	....	....	....	....	....	....	472	472	56	41	15
Min...	....	....	....	....	....	....	....	8	24	24	14	4
Acre-ft.	646	....	....	....	....	....	403	6110	7740	2260	1400	472

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Kannah Creek Near Whitewater for Year Ending Sept. 30, 1934.
Drainage Area, 38 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	6	....	....	....	....	2	70	17	27	5	.5
2....	4	4	....	....	....	....	2	59	16	21	.5	.5
3....	5	5	....	....	....	....	7	59	16	9	.5	.5
4....	5	6	....	....	....	....	10	69	13	6	.5	.5
5....	8	....	....	....	....	....	7	102	12	3	.5	.5
6....	7	....	....	....	....	....	2	88	18	3	.5	.5
7....	7	....	....	....	....	....	2	85	16	3	.5	.5
8....	7	....	....	....	....	....	3	74	15	4	.5	.5
9....	8	....	....	....	....	....	4	76	10	3	.5	.5
10....	6	....	....	....	....	....	4	71	8	3	10	.5
11....	8	....	....	....	....	....	7	60	6	3	1	.5
12....	8	....	....	....	....	....	12	48	6	4	.5	.5
13....	8	....	....	....	....	....	14	34	9	18	.5	.5
14....	8	....	....	....	....	....	16	27	10	22	.5	.5
15....	8	....	....	....	....	....	18	23	8	17	.5	.5
16....	8	....	....	....	....	....	24	21	6	17	.5	.5
17....	8	....	....	....	....	....	22	18	5	8	.5	.5
18....	7	....	....	....	....	....	27	15	3	5	.5	.5
19....	6	....	....	....	....	....	46	14	3	5	1	.5
20....	7	....	....	....	....	....	66	14	3	5	1	.5
21....	6	....	....	....	....	....	90	13	8	2	.5	.5
22....	7	....	....	....	....	....	104	13	12	1	.5	.5
23....	8	....	....	....	....	....	129	13	18	.5	.5	.5
24....	6	....	....	....	....	....	149	12	26	.5	.5	.5
25....	9	....	....	....	....	....	159	12	20	.5	.5	.5
26....	6	....	....	....	....	....	112	11	34	.5	.5	.5
27....	6	....	....	....	....	....	92	12	35	.5	.5	.5
28....	6	....	....	....	....	....	80	13	30	.5	.5	.5
29....	5	....	....	....	....	4	84	12	28	.5	.5	.5
30....	5	....	....	....	....	4	84	21	27	.5	.5	.5
31....	5	....	....	....	....	4	....	21	....	.5	.5	....
Total	206	....	....	....	....	....	1378	1180	432	194	26.5	17.5
Mean.	6.6	....	....	....	....	....	45.9	38.1	14.4	6.3	.85	.58
Max...	9	....	....	....	....	....	159	102	35	27	10	3
Min...	4	....	....	....	....	....	2	11	3	.5	.5	.5
Acre-ft.	406	....	....	....	....	....	2730	2340	857	387	52	35

Discharge of Dolores River at Dolores for Year Ending Sept. 30, 1933.
Drainage Area, 508 Square Miles. Altitude, 6,954 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	85	46	....	....	....	....	130	394	2590	394	195	67
2....	78	56	....	....	....	....	162	509	2770	340	195	63
3....	85	60	....	....	....	....	200	517	2150	302	166	60
4....	81	60	....	....	....	....	254	517	1840	308	143	53
5....	78	50	....	....	....	....	205	673	2150	284	143	50
6....	70	43	....	....	....	....	190	690	1840	284	139	46
7....	67	39	....	....	....	....	190	580	1630	472	139	43
8....	74	....	....	....	....	....	186	613	1300	630	139	46
9....	74	....	....	....	....	....	190	564	1560	517	134	67
10....	67	....	....	....	....	....	200	572	1990	524	117	302
11....	70	....	....	....	....	....	205	564	2130	457	109	272
12....	74	....	....	....	....	....	205	401	2170	457	97	200
13....	67	....	....	....	....	....	200	354	2200	387	89	186
14....	53	....	....	....	....	71	200	314	1620	334	78	171
15....	53	....	....	....	....	....	205	296	1600	302	74	157
16....	50	....	....	....	....	....	211	394	1430	284	63	134
17....	39	40	....	....	....	....	232	762	1300	308	60	117
18....	50	....	....	....	....	....	296	1140	1290	321	56	108
19....	67	....	....	....	....	....	278	1520	1290	278	85	148
20....	56	....	....	....	....	....	200	1870	1260	260	117	121
21....	70	....	....	....	....	....	166	2010	1050	260	81	166
22....	130	....	....	....	....	....	171	1620	990	238	78	429
23....	112	....	48	....	....	....	166	1110	990	222	74	232
24....	89	....	....	51	....	....	176	1030	861	205	70	186
25....	85	....	....	....	34	....	195	870	753	205	70	152
26....	74	....	....	....	....	....	216	1100	673	195	70	134
27....	78	....	....	....	....	....	284	1460	596	181	70	121
28....	74	....	....	....	....	....	394	1730	532	181	70	108
29....	74	....	....	....	....	....	443	2010	496	176	70	100
30....	70	....	....	....	....	117	415	2170	443	186	70	97
31....	56	....	....	....	....	121	....	2410	....	195	70	....
Total	2250	....	....	....	....	....	6765	30764	43944	9687	3122	4136
Mean.	72.6	42.5	48.0	51.0	34.0	66.0	226	992	1450	312	101	138
Max...	130	....	....	....	....	....	443	2410	2770	630	195	429
Min...	39	....	....	....	....	....	130	296	443	176	56	43
Acre-ft.	4460	2530	2950	3140	1890	4060	13400	61000	86300	19200	6210	8210

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Dolores River at Dolores for Year Ending Sept. 30, 1934.
Drainage Area, 503 Square Miles. Altitude, 6,954 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	93	74	.....	.....	.....	.....	151	745	269	44	37	65
2.....	100	74	.....	.....	.....	.....	156	704	237	42	33	56
3.....	121	74	.....	.....	.....	.....	158	609	219	41	31	45
4.....	126	74	.....	.....	.....	.....	128	565	199	41	32	40
5.....	121	74	.....	.....	.....	.....	135	535	179	41	40	37
6.....	176	61	.....	.....	.....	.....	114	622	171	36	36	38
7.....	162	67	.....	.....	.....	.....	120	803	163	36	37	37
8.....	134	81	.....	.....	.....	.....	144	776	148	44	40	40
9.....	112	70	.....	.....	.....	.....	187	825	116	68	45	44
10.....	112	78	.....	.....	.....	.....	266	931	112	63	42	42
11.....	112	78	.....	.....	.....	.....	421	908	110	58	42	37
12.....	148	67	.....	.....	.....	.....	514	919	101	56	54	35
13.....	134	67	.....	.....	.....	.....	565	874	92	51	45	31
14.....	134	67	.....	.....	.....	.....	501	787	89	48	46	29
15.....	134	67	.....	.....	.....	.....	522	684	78	42	57	26
16.....	117	64	.....	.....	.....	.....	565	622	74	40	71	25
17.....	108	61	.....	.....	.....	.....	565	578	70	41	63	26
18.....	100	70	.....	.....	.....	.....	522	548	65	41	71	25
19.....	97	93	.....	.....	.....	.....	573	497	65	45	66	25
20.....	89	64	.....	.....	.....	.....	613	449	62	54	73	25
21.....	89	64	.....	.....	.....	.....	709	409	58	73	84	29
22.....	89	52	.....	.....	.....	.....	729	377	56	112	71	30
23.....	81	55	.....	.....	.....	.....	665	366	51	103	65	32
24.....	78	61	.....	.....	.....	.....	679	325	57	78	56	76
25.....	78	61	.....	.....	.....	.....	766	296	96	68	45	86
26.....	78	61	.....	.....	.....	.....	781	286	81	81	50	74
27.....	74	55	.....	.....	.....	118	740	279	70	71	57	58
28.....	74	52	.....	.....	.....	.....	755	286	58	60	65	56
29.....	74	52	.....	.....	.....	.....	699	286	50	52	56	51
30.....	74	52	.....	.....	.....	.....	714	343	42	46	50	46
31.....	74	.....	.....	.....	.....	.....	.....	347	.....	41	50	.....
Total	3293	1990	.....	.....	.....	.....	14157	17581	3238	1717	1610	1266
Mean.	106	66.3	50	40	50	75	472	567	108	55.4	51.9	42.2
Max..	176	93	.....	.....	.....	.....	781	931	269	112	84	86
Min..	74	52	.....	.....	.....	.....	114	279	42	36	31	25
Acre-ft.	6520	3950	3070	2460	2780	4610	28100	34900	6430	3410	3190	2510

Discharge of San Miguel River Near Placerville for Year Ending Sept. 30, 1933.
Drainage Area, 304 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	98	70	.....	.....	.....	.....	96	110	1060	512	132	123
2.....	98	74	.....	.....	.....	.....	100	121	1000	477	127	116
3.....	96	74	.....	.....	.....	.....	145	118	978	452	138	116
4.....	94	74	.....	.....	.....	.....	132	138	939	443	138	113
5.....	92	75	.....	.....	.....	.....	92	179	928	418	138	110
6.....	92	78	.....	.....	.....	.....	91	149	781	477	132	109
7.....	92	78	.....	.....	.....	.....	107	138	676	608	133	107
8.....	94	60	.....	.....	.....	.....	107	145	636	590	138	105
9.....	96	68	.....	.....	.....	.....	112	134	843	464	142	133
10.....	96	63	.....	.....	.....	.....	89	176	1050	431	127	284
11.....	92	.....	.....	.....	.....	.....	82	184	944	395	121	224
12.....	92	.....	.....	.....	.....	.....	83	163	890	361	113	188
13.....	94	.....	.....	.....	.....	.....	85	166	972	331	107	162
14.....	94	.....	.....	.....	.....	.....	73	158	901	293	105	160
15.....	91	.....	.....	.....	.....	.....	83	171	473	275	96	146
16.....	91	.....	.....	.....	.....	.....	114	213	966	275	102	132
17.....	91	.....	.....	.....	.....	.....	140	331	933	284	104	126
18.....	92	.....	.....	.....	.....	.....	168	456	874	256	109	144
19.....	92	.....	.....	.....	.....	.....	136	526	890	222	146	138
20.....	91	.....	.....	.....	.....	.....	107	636	933	208	128	132
21.....	98	.....	.....	.....	.....	.....	98	676	922	198	126	261
22.....	109	.....	.....	.....	.....	.....	94	590	854	186	139	267
23.....	94	.....	.....	.....	.....	.....	98	481	791	170	132	194
24.....	92	.....	.....	.....	.....	.....	110	395	756	158	132	168
25.....	82	.....	.....	.....	.....	.....	121	395	756	149	126	160
26.....	80	.....	.....	.....	.....	.....	134	485	711	139	126	154
27.....	87	.....	.....	.....	.....	.....	149	581	627	134	127	144
28.....	89	.....	.....	.....	.....	91	149	671	599	134	96	139
29.....	87	.....	.....	.....	.....	98	132	786	613	138	121	133
30.....	83	.....	.....	.....	.....	94	110	906	576	138	120	133
31.....	70	.....	.....	.....	.....	83	.....	1010	.....	136	120	.....
Total	2839	.....	.....	.....	.....	.....	3337	11388	24872	9452	3841	4621
Mean.	91.6	71	.....	.....	.....	85	111	367	829	305	124	154
Max..	109	.....	.....	.....	.....	.....	168	1010	1060	608	146	284
Min..	70	.....	.....	.....	.....	.....	73	110	473	134	96	105
Acre-ft.	5630	4220	.....	.....	.....	5230	6600	22600	49300	18800	7620	9160

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Miguel River Near Placerville for Year Ending Sept. 30, 1934.
Drainage Area, 304 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	130	104	....	....	....	....	....	327	272	124	95	125
2....	139	101	....	....	....	....	....	292	278	123	95	120
3....	139	96	....	....	....	....	....	255	267	123	100	120
4....	136	....	....	....	....	....	....	234	237	120	105	110
5....	148	....	....	....	....	....	....	246	232	120	101	110
6....	146	....	....	....	....	....	....	320	232	117	107	110
7....	139	....	....	....	....	....	....	406	198	117	106	120
8....	136	....	....	....	....	....	....	435	196	124	106	120
9....	133	....	....	....	....	....	....	516	219	124	105	120
10....	139	....	....	....	....	....	....	622	219	120	113	130
11....	148	....	....	....	....	....	....	608	224	114	113	120
12....	149	....	....	....	....	....	....	549	222	117	106	100
13....	142	....	....	....	....	....	149	521	210	114	111	90
14....	142	....	....	....	....	....	143	455	196	113	144	80
15....	136	....	....	....	....	....	145	452	182	110	151	80
16....	126	....	....	....	....	....	145	431	162	107	133	65
17....	120	....	....	....	....	....	145	439	151	109	124	65
18....	116	....	....	....	....	....	145	443	162	110	139	60
19....	113	....	....	....	....	....	166	427	162	111	144	58
20....	111	....	....	....	....	....	181	391	160	123	192	64
21....	107	....	....	....	....	....	205	376	151	127	172	67
22....	102	....	....	....	....	....	231	361	142	132	134	60
23....	102	....	....	....	....	....	219	299	142	124	113	60
24....	98	....	....	....	....	....	237	276	149	114	96	83
25....	98	....	....	....	....	....	283	267	154	114	87	76
26....	95	....	....	....	....	....	299	286	141	109	87	70
27....	95	....	....	....	....	....	306	384	138	106	100	68
28....	96	....	....	....	....	....	313	418	136	100	110	68
29....	96	....	....	....	....	....	302	414	132	93	127	70
30....	93	....	....	....	....	....	320	448	124	92	135	64
31....	97	....	....	....	....	....	....	302	....	93	130	....
Total	3767	....	....	....	....	....	....	12230	5590	3544	3681	2653
Mean.	122	70.2	....	....	....	....	186	395	186	114	119	88.4
Max..	149	....	....	....	....	....	....	622	278	132	192	130
Min...	93	....	....	....	....	....	....	234	124	92	87	58
Acre-ft.	7500	4180	....	....	....	....	11100	24300	11100	7010	7320	5260

Discharge of Paria River at Lee's Ferry for Year Ending Sept. 30, 1933.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	104	16	22	7	18	88	17	24	3	3	29	6
2....	40	16	42	7	18	104	16	26	3	3	18	5
3....	54	17	31	6	12	119	16	20	3	4	13	5
4....	25	17	21	5	12	108	15	16	3	4	8	5
5....	18	15	22	4	17	66	15	10	3	4	6	5
6....	16	14	23	4	20	39	14	8	3	4	6	5
7....	16	14	20	4	7	40	14	7	3	10	86	4
8....	13	15	14	4	5	56	13	7	3	8	50	9
9....	11	16	16	4	11	55	12	5	3	21	48	685
10....	10	17	24	4	10	52	10	5	2	9	18	73
11....	10	18	21	4	12	49	9	7	2	7	10	23
12....	9	15	12	6	18	41	11	5	2	34	8	13
13....	9	14	9	7	16	36	10	5	3	43	5	10
14....	9	18	10	7	18	35	9	9	3	22	4	7
15....	8	20	7	7	16	26	8	8	3	17	4	8
16....	8	20	6	8	20	24	8	7	3	99	4	16
17....	8	18	7	10	18	25	8	5	3	169	4	11
18....	7	18	12	12	20	30	9	4	3	450	8	8
19....	7	17	14	16	23	25	7	4	3	27	20	5
20....	8	17	10	16	24	18	8	4	3	23	13	5
21....	17	17	10	14	26	18	8	4	2	48	118	118
22....	36	11	11	18	24	20	8	4	3	99	558	90
23....	27	17	11	19	25	18	8	4	2	37	92	31
24....	24	16	12	18	28	16	7	4	2	14	34	18
25....	20	14	12	19	36	15	7	10	2	11	18	12
26....	17	17	7	17	59	15	5	7	2	14	12	8
27....	18	19	8	14	72	16	5	5	2	11	9	7
28....	18	19	4	20	81	16	5	4	3	177	7	8
29....	20	17	6	16	....	15	7	4	2	41	8	8
30....	17	17	5	19	....	16	20	4	2	95	6	7
31....	16	....	5	19	....	18	....	3	....	51	6	....
Total	620	502	434	335	666	1219	309	239	79	1559	1230	1214
Mean.	20.0	16.7	14.0	10.8	23.8	39.3	10.3	7.7	2.6	50.3	39.7	40.5
Max..	....	....	....	....	....	....	....	....	....	....	....	....
Min...	....	....	....	....	....	....	....	....	....	....	....	....
Acre-ft.	1230	994	861	664	1320	2420	613	474	155	3090	2440	2410

Unless otherwise noted, all discharges are in cubic feet per second.

GREEN RIVER DRAINAGE

Cooperation—All stations maintained in cooperation with the United States Geological Survey.

GREEN RIVER NEAR LINWOOD, UTAH

Location—In SW $\frac{1}{4}$ Sec. 21, T. 3 N., R. 21 E., at Smith's Ferry, five miles southeast of Linwood.

Records Available—October 1, 1928, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ELK RIVER AT CLARK

Location—In Sec. 28, T. 9 N., R. 85 W., at highway at Clark.

Records Available—May 1, 1910, to September 30, 1922; April 23, 1930, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1910-22, 1930-34): Maximum daily discharge, 4,470 second feet June 9, 1912.

LITTLE SNAKE RIVER NEAR LILY

Location—In Sec. 20, T. 7 N., R. 98 W., six miles north of Lily and six miles above mouth, at highway bridge.

Records Available—May 1, 1922, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1904, 1922-34): Maximum daily discharge, 8,950 second-feet May 28, 1926.

SLATER FORK NEAR SLATER

Location—At second highway bridge about one mile above mouth and one and one-half miles south of Slater Post Office.

Records Available—July 9, 1931, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

WHITE RIVER NEAR MEEKER

Location—In Sec. 30, T. 1 N., R. 93 W., three and one-half miles east of Meeker at Russell Ranch bridge and one mile above Curtis Creek.

Records Available—May 7, 1910, to September 30, 1934. From April 12, 1904, to October 31, 1906, a station was maintained two and one-half miles below the present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1901-06, 1910-34): Maximum daily discharge, 6,070 second-feet June 16, 1921.

WHITE RIVER NEAR WATSON, UTAH

Location—In Sec. 2, T. 10 S., R. 24 E., Uintah Meridian, at toll bridge on Vernal-Dragon highway ten miles northeast of Watson and just below mouth of Evacuation Creek.

Records Available—April 1 to October 31, 1906; April 1, 1923, to September 30, 1934, at Rangely, twenty miles above this station, April 15, 1904, to October 31, 1905, and May 20 to November 23, 1918.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum discharge (1906, 1923-34): Maximum daily discharge 8,160 second-feet July 15, 1929.

YAMPA RIVER AT STEAMBOAT SPRINGS

Location—In Sec. 17, T. 6 N., R. 84 W., at First Street bridge in Steamboat Springs and one-fourth mile above mouth of Soda Creek.

Records Available—May 3, 1904, to October 31, 1906; March 1, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered excellent.

Maximum discharge (1904-06, 1910-34): 6,820 second-feet June 14, 1921 (gage height, 6.64 feet).

YAMPA RIVER NEAR MAYBELL

Location—In Sec. 2, T. 6 N., R. 95 W., one-fourth mile below new highway bridge, three miles east of Maybell.

Records Available—April 24, 1916, to September 30, 1934. From April 17, 1904, to October 31, 1905, and June 12, 1910, to November 30, 1912, station was maintained nine miles below the present station.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Discharge of Green River Near Linwood, Utah, for Year Ending Sept. 30, 1933.
Drainage Area, 14,300 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	560	724	651	340	310	500	1120	2390	2770	4510	1120	598
2....	560	700	591	340	310	500	1480	2540	3460	4540	1120	565
3....	560	665	732	340	310	500	1600	2570	4470	4390	1050	548
4....	554	651	708	340	310	500	1510	2310	5430	4090	1040	538
5....	543	665	532	340	310	500	1280	2150	6360	3800	1040	532
6....	538	665	500	325	250	500	1260	2010	6860	3440	910	538
7....	521	630	500	320	250	500	1200	1940	7100	3200	861	538
8....	532	617	500	310	250	500	1180	1850	7500	3170	825	538
9....	572	624	500	310	250	500	1140	1730	7820	3450	772	538
10....	610	630	500	310	250	500	1020	1640	7820	3440	748	532
11....	617	604	320	340	320	550	930	1580	7720	3410	708	543
12....	591	578	320	340	320	550	900	1540	7410	3420	686	538
13....	598	572	320	340	320	550	900	1580	8190	3310	655	532
14....	604	565	320	340	320	550	880	1590	9230	3170	651	532
15....	598	548	320	340	344	550	880	1560	9660	2800	637	530
16....	578	665	375	260	370	550	880	1510	10800	2580	610	525
17....	591	716	375	260	370	550	870	1400	11700	2450	591	520
18....	630	700	375	260	370	550	870	1360	11200	2340	578	500
19....	665	700	375	260	370	550	990	1340	10800	2230	560	465
20....	700	756	375	260	370	550	1400	1360	10200	2100	543	445
21....	693	732	400	290	410	600	1570	1430	9540	1910	548	450
22....	665	700	400	290	410	600	1580	1520	9060	1780	565	442
23....	708	708	400	290	410	600	1570	1580	8530	1640	578	433
24....	740	644	400	290	410	600	1870	1740	7970	1560	572	420
25....	716	637	400	290	410	600	1680	2030	7240	1510	560	416
26....	700	624	320	300	450	720	1740	2020	6140	1380	572	450
17....	708	565	320	300	450	720	1820	1830	5610	1310	572	445
28....	708	548	320	300	450	720	1960	1720	5250	1260	637	450
29....	724	565	320	300	....	720	2120	1910	5070	1210	700	475
30....	732	548	320	300	....	930	2230	2200	4780	1210	732	460
31....	740	....	320	300	....	1090	....	2470	....	1190	630	....
Total	19556	19246	13109	9525	9674	18400	40430	56400	225690	81800	22374	15036
Mean.	631	642	423	307	346	594	1350	1820	7520	2640	722	501
Max..	740	756	732	....	....	1090	2230	2570	11700	4540	1120	598
Min..	521	548	....	....	....	....	870	1340	2770	1190	543	416
Acre-ft.	38800	38200	26000	18900	19200	36500	80300	112000	447000	162000	44400	29800

Discharge of Greene River Near Linwood, Utah, for Year Ending Sept. 30, 1934.
Drainage Area, 14,300 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	460	450	505	400	350	516	485	354	1550	606	573	317
2....	460	441	470	400	350	592	495	348	1500	566	549	314
3....	470	435	475	400	350	708	544	344	1430	538	527	311
4....	460	431	450	400	350	784	554	351	1410	538	532	314
5....	460	425	425	400	350	730	560	365	1290	500	549	311
6....	450	420	470	255	400	760	606	378	1170	460	544	308
7....	440	334	516	255	400	932	670	354	1050	445	554	298
8....	430	421	532	255	400	818	730	334	977	480	580	295
9....	430	431	480	255	400	730	722	354	896	549	592	287
10....	430	435	516	255	400	784	662	522	826	544	715	281
11....	430	440	544	200	375	784	654	1010	843	522	612	268
12....	420	445	612	210	375	792	554	1380	800	460	592	263
13....	420	450	516	221	375	768	554	1510	809	412	560	258
14....	420	495	505	240	375	752	560	1530	768	378	544	253
15....	450	480	527	280	375	708	538	1480	670	369	538	251
16....	460	475	400	325	438	708	527	1480	606	348	532	248
17....	440	480	400	325	480	722	516	1460	560	324	532	248
18....	430	480	400	325	490	738	490	1390	566	301	510	246
19....	420	490	400	325	500	738	475	1350	662	284	460	240
20....	450	485	400	325	510	700	450	1450	818	276	480	238
21....	455	485	450	350	522	648	421	1540	792	290	480	236
22....	460	495	450	350	522	625	394	1650	826	311	435	230
23....	460	516	450	350	538	625	369	1580	852	314	407	234
24....	450	505	450	350	538	625	351	1700	818	292	403	246
25....	445	480	450	350	532	625	327	1770	775	298	394	251
26....	440	475	460	325	522	625	311	1800	715	327	382	260
27....	435	500	430	325	538	586	314	1740	662	358	378	253
28....	431	465	412	325	580	560	327	1730	670	399	365	256
29....	435	465	410	325	....	527	334	1720	708	560	354	258
30....	440	490	410	325	....	490	344	1720	662	599	337	256
31....	445	....	410	325	....	495	....	1620	....	586	327	....
Total	13726	13819	14325	9751	12335	21195	14790	36314	26681	13234	15317	8020
Mean.	443	461	462	315	441	684	493	1171	889	427	494	268
Max..	470	516	612	....	580	932	730	1800	1550	606	715	317
Min..	420	334	....	200	....	490	311	334	560	276	327	230
Acre-ft.	27230	27410	28410	19340	24470	42040	29340	72030	52920	26250	30380	15930

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Elk River at Clark for Year Ending Sept. 30, 1933.
Drainage Area, 206 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	54	88	....	....	....	....	300	557	2210	614	194	58
2....	54	73	....	....	....	....	300	557	2450	582	179	52
3....	54	88	....	....	....	....	300	621	2530	551	143	52
4....	54	80	....	....	....	....	300	761	2410	491	132	52
5....	54	96	....	....	....	....	320	1030	2250	463	124	52
6....	54	88	....	....	....	....	300	950	2250	430	105	58
7....	54	80	....	....	....	....	320	588	2210	430	105	59
8....	54	80	....	....	....	....	280	557	1890	404	105	53
9....	66	80	....	....	....	....	280	364	1970	379	107	53
10....	73	80	....	....	....	....	280	320	2290	333	107	59
11....	80	80	....	....	....	....	212	300	2210	308	98	79
12....	88	88	....	....	....	....	244	244	2210	269	98	112
13....	96	88	....	....	....	....	280	280	1970	251	91	86
14....	96	88	....	....	....	....	212	280	1810	218	76	72
15....	88	80	....	....	....	....	244	320	1890	218	76	59
16....	88	80	....	....	....	....	280	526	1730	200	76	59
17....	88	80	....	....	....	....	320	798	1890	172	76	54
18....	88	88	....	....	....	....	342	1260	1730	172	76	54
19....	88	88	....	....	....	....	300	1490	1810	172	83	54
20....	96	96	....	....	....	....	320	1570	1730	159	83	54
21....	105	....	....	....	....	....	280	1650	1570	156	83	54
22....	105	....	....	....	....	....	320	1810	1490	134	76	60
23....	96	....	....	....	....	....	280	1410	1410	134	62	66
24....	96	....	....	....	....	....	262	1180	1300	124	56	60
25....	96	....	....	....	....	....	244	1180	1260	124	56	54
26....	105	....	....	....	....	....	262	1410	1060	112	64	80
27....	96	....	....	....	....	....	320	1610	1030	103	77	88
28....	88	....	....	....	....	....	526	1730	1030	103	85	73
29....	80	....	....	....	....	....	761	1810	912	112	77	65
30....	80	....	....	....	....	....	621	2050	761	122	70	60
31....	96	....	....	....	....	....	....	2130	....	132	64	....
Total	2510	....	....	....	....	....	9610	31343	53263	8172	2904	1892
Mean.	81.0	84.4	....	....	....	....	320	1010	1780	264	93.7	63.1
Max..	105	....	....	....	....	....	761	2130	2530	614	194	112
Min..	54	....	....	....	....	....	212	244	761	103	56	52
Acre-ft.	4980	5020	....	....	....	....	19000	62100	106000	16200	5760	3750

Discharge of Elk River at Clark for Year Ending Sept. 30, 1934.
Drainage Area, 206 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	40	54	....	....	....	....	....	779	670	102	35	30
2....	35	54	....	....	....	....	....	742	536	91	35	35
3....	35	54	....	....	....	....	....	706	478	83	35	33
4....	35	60	....	....	....	....	....	779	473	91	35	32
5....	33	54	....	....	....	....	....	856	440	100	35	26
6....	30	54	....	....	....	....	....	1020	414	83	34	26
7....	30	54	....	....	....	....	....	1180	367	76	28	26
8....	30	....	....	....	....	....	....	1230	294	76	35	44
9....	30	....	....	....	....	....	....	1280	290	73	52	55
10....	29	....	....	....	....	....	....	1100	286	65	52	56
11....	26	....	....	....	....	....	....	286	1060	252	94	46
12....	30	....	....	....	....	....	....	398	1140	245	72	42
13....	30	....	....	....	....	....	....	507	1020	232	59	41
14....	30	....	....	....	....	....	....	536	936	215	50	41
15....	28	....	....	....	....	....	....	568	976	215	51	49
16....	26	....	....	....	....	....	....	451	856	215	55	62
17....	28	....	....	....	....	....	....	424	786	194	50	51
18....	26	....	....	....	....	....	....	478	816	185	50	54
19....	26	....	....	....	....	....	....	536	816	185	50	53
20....	35	....	....	....	....	....	....	600	742	160	45	52
21....	40	....	....	....	....	....	....	670	742	160	45	46
22....	30	....	....	....	....	....	....	700	742	148	45	42
23....	33	....	....	....	....	....	....	742	856	135	52	39
24....	43	....	....	....	....	....	....	816	936	135	44	35
25....	45	....	....	....	....	....	....	896	976	155	44	35
26....	45	....	....	....	....	....	....	779	1060	125	44	33
27....	48	....	....	....	....	....	....	600	1020	117	40	28
28....	48	....	....	....	....	....	....	670	809	111	40	26
29....	50	....	....	....	....	....	....	779	816	104	35	26
30....	52	....	....	....	....	....	....	816	1020	100	35	26
31....	54	....	....	....	....	....	....	....	856	....	35	26
Total	1106	....	....	....	....	....	....	28653	7636	1875	1239	1203
Mean.	35.7	51	....	....	....	....	....	489	924	255	60.5	40.1
Max..	54	....	....	....	....	....	....	1280	670	102	62	56
Min..	26	....	....	....	....	....	....	706	100	35	26	26
Acre-ft.	2200	3030	....	....	....	....	....	29100	56800	15200	3720	2390

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Little Snake River Near Lily for Year Ending Sept. 30, 1933.
Drainage Area, 3,730 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	50	186	256	....	....	....	500	3650	4770	1020	22	4
2....	50	154	256	....	....	....	500	2990	4070	840	22	4
3....	50	170	238	....	....	....	500	2660	4070	760	22	2
4....	50	154	238	....	....	....	560	2290	3930	498	18	2
5....	50	170	220	....	....	....	840	2470	3930	388	18	2
6....	60	170	154	....	....	....	760	2730	3930	388	18	4
7....	60	170	154	....	....	....	498	2860	4350	364	13	2
8....	70	154	122	....	....	....	469	2540	4350	340	13	2
9....	82	154	....	....	....	....	529	2600	4490	340	13	6
10....	108	170	....	....	....	....	498	2350	3790	318	13	10
11....	94	170	....	....	....	....	498	2110	3250	296	10	13
12....	122	186	....	....	....	....	529	2170	3380	296	10	6
13....	170	186	....	....	....	....	560	1930	3650	276	10	4
14....	154	203	....	....	....	....	592	2110	3650	256	10	4
15....	154	203	....	....	....	....	624	1110	3790	238	6	4
16....	170	186	....	....	....	....	657	1210	3510	220	6	2
17....	170	170	....	....	....	....	690	1260	3510	186	6	2
18....	186	186	....	....	....	....	725	1640	4070	154	6	2
19....	186	186	....	....	....	....	930	2600	3790	138	6	2
20....	186	186	....	....	....	....	1530	3790	4070	108	6	2
21....	186	186	....	....	....	....	1530	4350	4770	70	6	2
22....	186	203	....	....	....	....	1640	4770	4490	60	6	2
23....	186	203	....	....	....	....	1700	5070	4070	50	6	2
24....	186	154	....	....	....	....	1750	4280	3790	42	6	2
25....	186	170	....	....	....	....	1810	3650	3510	34	6	2
26....	203	186	....	....	....	....	1750	3510	3120	34	6	2
27....	186	170	....	....	....	....	2110	3650	2990	34	6	2
28....	170	186	....	....	....	....	2170	4070	1640	28	6	2
29....	154	238	....	....	....	....	2660	4350	1310	28	6	2
30....	170	238	....	....	....	....	3380	4350	1210	28	5	2
31....	170	....	....	....	....	....	....	5670	....	28	6	....
Total	4205	5448	....	....	....	....	33489	94730	109250	7860	314	99
Mean..	136	182	....	....	....	....	1120	3060	3640	254	10.1	3.30
Max...	203	238	....	....	....	....	3380	5670	4770	1020	22	13
Min...	50	154	....	....	....	....	469	1110	1210	28	5	2
Acre-ft.	8360	10800	....	....	....	....	66600	188000	217000	15600	621	196

Discharge of Little Snake River Near Lily for Year Ending Sept. 30, 1934.
Drainage Area, 3,730 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	620	118	1	0	0
2....	598	113	1	0	0
3....	582	132	1	0	0
4....	536	118	1	0	0
5....	541	103	1	0	0
6....	598	100	1	0	0
7....	582	80	1	0	0
8....	647	70	1	0	0
9....	708	60	1	0	0
10....	702	50	0	0	0
11....	736	40	0	0	0
12....	702	20	0	0	0
13....	205	....	631	15	0	0	0
14....	193	....	647	10	0	0	0
15....	224	....	669	10	0	0	0
16....	238	....	588	5	0	0	0
17....	224	724	476	5	0	0	0
18....	245	702	426	5	0	0	0
19....	276	620	426	5	0	0	0
20....	241	620	384	5	0	0	0
21....	214	674	393	5	0	0	0
22....	208	747	370	5	0	0	0
23....	836	353	5	0	0	0
24....	865	324	5	0	0	0
25....	831	300	5	0	0	0
26....	820	288	5	0	0	0
27....	842	248	2	0	0	0
28....	814	221	2	0	0	0
29....	652	190	2	0	0	0
30....	625	157	2	0	0	0
31....	143	....	0	0	....
Total	14786	1102	9	0	0
Mean..	1.0	....	....	....	....	200	465	477	36.7	0.29	0	0
Max...	736	132	1	0	0
Min...	143	....	0	0	0
Acre-ft.	61	....	....	....	....	12300	27700	29300	2180	18	0	0

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Slater Fork Near Slater for Year Ending Sept. 30, 1933.
Drainage Area, 161 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	9	12	13	.....	.....	.....	8	96	488	8	4	4
2.....	9	11	11	.....	.....	.....	8	112	504	7	4	4
3.....	9	11	13	.....	.....	.....	8	130	504	7	4	4
4.....	9	11	12	.....	.....	.....	7	142	488	6	4	4
5.....	9	12	15	.....	.....	.....	7	162	472	6	4	4
6.....	9	13	13	.....	.....	.....	7	176	390	6	4	4
7.....	9	9	12	.....	.....	.....	8	85	382	7	4	4
8.....	9	9	12	.....	.....	.....	8	70	326	7	4	4
9.....	11	12	11	.....	.....	.....	8	43	342	6	4	4
10.....	12	10	13	.....	.....	.....	7	40	390	5	4	4
11.....	11	10	16	.....	.....	.....	6	33	310	5	4	4
12.....	15	12	.....	.....	.....	.....	7	25	310	5	4	4
13.....	16	13	.....	.....	.....	.....	7	25	295	5	4	4
14.....	13	10	.....	.....	.....	.....	6	28	280	4	4	4
15.....	11	10	.....	.....	.....	.....	7	36	280	4	4	4
16.....	11	12	.....	.....	.....	.....	8	80	250	4	4	4
17.....	11	11	.....	.....	.....	.....	11	192	235	4	4	4
18.....	11	11	.....	.....	.....	.....	17	312	198	4	4	4
19.....	11	12	.....	.....	.....	.....	19	360	162	4	4	4
20.....	9	12	.....	.....	.....	.....	12	472	112	4	4	4
21.....	11	10	.....	.....	.....	.....	10	520	70	4	4	4
22.....	13	11	.....	.....	.....	.....	10	473	51	4	4	4
23.....	16	8	.....	.....	.....	.....	16	283	36	4	4	4
24.....	12	10	.....	.....	.....	.....	25	298	36	4	4	4
25.....	9	11	.....	.....	.....	.....	33	361	30	4	4	4
26.....	12	11	.....	.....	.....	.....	43	441	21	4	4	4
27.....	11	11	.....	.....	.....	.....	70	489	16	4	4	4
28.....	12	11	.....	.....	.....	.....	124	441	12	4	4	4
29.....	10	12	.....	.....	.....	.....	142	393	10	4	4	4
30.....	11	15	.....	.....	.....	.....	106	425	9	4	4	4
31.....	9	.....	.....	.....	.....	.....	.....	457	.....	4	4	.....
Total	340	332	.....	.....	.....	.....	755	7200	7009	152	124	120
Mean...	11.0	11.1	11.0	.....	.....	.....	25.2	232	234	4.90	4.00	4.00
Max....	16	15	.....	.....	.....	.....	142	520	504	8	4	4
Min....	9	8	.....	.....	.....	.....	6	25	9	4	4	4
Acre-ft.	676	660	676	.....	.....	.....	1500	14300	13900	301	246	238

Discharge of Slater Fork Near Slater for Year Ending Sept. 30, 1934.
Drainage Area, 161 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1.....	6	11	7	.....	.....	.....	37	87	20	3	1	4
2.....	5	8	7	.....	.....	.....	46	72	18	2	0	5
3.....	6	10	7	.....	.....	.....	47	66	23	2	0	6
4.....	6	11	8	.....	.....	.....	52	62	26	3	0	7
5.....	6	7	.....	.....	.....	.....	60	63	29	6	0	7
6.....	6	6	.....	.....	.....	.....	64	65	34	6	0	8
7.....	7	9	.....	.....	.....	.....	85	63	48	4	0	7
8.....	7	8	.....	.....	.....	.....	91	58	49	2	0	6
9.....	7	8	.....	.....	.....	.....	96	51	48	2	0	7
10.....	7	7	.....	.....	.....	.....	92	50	42	3	0	7
11.....	7	7	.....	.....	.....	.....	99	57	40	3	1	8
12.....	7	7	.....	.....	.....	.....	107	60	40	4	3	7
13.....	6	7	.....	.....	.....	.....	105	48	45	4	3	8
14.....	6	7	.....	.....	.....	.....	100	42	34	5	4	6
15.....	6	7	.....	.....	.....	.....	103	45	32	5	3	7
16.....	6	8	.....	.....	.....	.....	95	49	32	3	5	6
17.....	6	8	.....	.....	.....	.....	28	97	49	29	3	6
18.....	6	8	.....	.....	.....	.....	23	114	48	24	5	7
19.....	7	7	.....	.....	.....	.....	24	119	45	24	5	7
20.....	7	7	.....	.....	.....	.....	19	124	41	26	2	10
21.....	7	7	.....	.....	.....	.....	11	129	36	29	2	8
22.....	8	8	.....	.....	.....	.....	8	125	34	29	3	8
23.....	8	8	.....	.....	.....	.....	7	120	29	20	5	10
24.....	8	7	.....	.....	.....	.....	7	122	30	18	4	10
25.....	9	8	.....	.....	.....	.....	11	116	27	16	4	7
26.....	9	6	.....	.....	.....	.....	17	109	25	11	4	6
27.....	10	8	.....	.....	.....	.....	23	110	22	6	3	6
28.....	10	9	.....	.....	.....	.....	30	110	21	3	3	7
29.....	10	8	.....	.....	.....	.....	39	109	20	2	3	8
30.....	10	7	.....	.....	.....	.....	37	97	25	4	2	10
31.....	10	.....	.....	.....	.....	.....	40	.....	27	.....	1	.....
Total	226	232	.....	.....	.....	.....	2880	1417	801	100	103	214
Mean...	7.3	7.7	.....	.....	.....	.....	22	96.0	45.7	26.7	3.2	7.1
Max....	10	11	.....	.....	.....	.....	129	87	49	6	7	10
Min....	5	6	.....	.....	.....	.....	37	20	2	1	0	4
Acre-ft.	449	458	.....	.....	.....	.....	1350	5710	2810	1590	197	422

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of White River Near Meeker for Year Ending Sept. 30, 1933.
Drainage Area, 634 Square Miles. Altitude, 6,182 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	426	409	404	....	....	....	520	668	2820	1020	542	398
2....	426	415	398	....	....	....	520	677	3020	1000	535	392
3....	415	415	415	....	....	....	520	720	2920	933	474	392
4....	426	398	409	....	....	....	530	703	3120	990	432	387
5....	426	398	398	....	....	....	530	694	2920	923	438	392
6....	420	432	415	....	....	....	530	829	3120	914	426	398
7....	415	426	409	....	....	....	521	765	2820	904	420	387
8....	420	398	398	....	....	....	556	729	2730	885	438	387
9....	420	438	....	....	....	....	549	677	2820	829	432	438
10....	438	426	....	....	....	....	528	703	3220	792	415	438
11....	438	387	....	....	....	....	542	643	3120	848	392	415
12....	432	404	....	....	....	....	542	595	3120	792	381	450
13....	420	398	....	....	....	....	535	603	3320	720	376	426
14....	415	398	....	....	....	....	521	595	3120	677	365	415
15....	415	426	....	....	....	....	542	587	3120	703	370	387
16....	409	426	....	....	....	....	556	595	2820	660	370	387
17....	398	426	....	....	....	....	549	765	2730	643	360	376
18....	409	420	....	....	....	....	535	1000	2640	643	360	370
19....	426	426	....	....	....	....	528	1400	2550	626	398	387
20....	404	415	....	....	....	....	521	1740	2460	572	398	381
21....	409	404	....	....	....	....	507	1960	2370	549	376	376
22....	468	415	....	....	....	....	500	1830	2120	549	381	376
23....	450	398	....	....	....	....	493	1400	1890	549	376	370
24....	426	381	....	....	....	....	486	1330	1820	528	370	360
25....	415	381	....	....	....	....	521	1600	1670	528	370	360
26....	432	398	....	....	....	....	556	1960	1600	514	387	404
27....	415	387	....	....	....	....	595	2200	1420	474	420	398
28....	404	381	....	....	....	....	711	2550	1360	468	426	365
29....	415	392	....	....	....	....	838	2550	1270	474	426	360
30....	415	404	....	....	....	....	765	2640	1100	456	426	355
31....	398	....	....	....	....	....	....	2730	....	456	415	....
Total	13045	12222	....	....	....	....	16647	38488	75130	21619	12695	11727
Mean..	421	407	....	....	....	....	555	1240	2500	697	410	391
Max...	468	438	....	....	....	....	838	2730	3320	1020	542	450
Min...	398	381	....	....	....	....	486	587	1100	456	360	355
Acre-ft.	25900	24200	....	....	....	....	33000	76200	149000	42900	25200	23300

Discharge of White River Near Meeker for Year Ending Sept. 30, 1934.
Drainage Area, 634 Square Miles. Altitude, 6,182 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	348	412	364	....	240	358	364	674	479	178	142	250
2....	348	370	388	....	240	370	353	642	418	189	172	240
3....	370	358	348	....	240	425	370	682	388	189	152	230
4....	370	364	358	....	240	438	358	642	364	202	150	225
5....	358	364	348	....	240	445	353	626	338	206	178	220
6....	358	338	338	....	240	472	313	642	348	164	159	220
7....	358	353	318	....	240	400	364	783	338	152	159	216
8....	358	348	304	....	240	353	376	909	304	152	164	245
9....	353	370	313	....	240	343	394	930	308	147	195	286
10....	358	370	308	....	240	353	418	980	299	147	216	268
11....	370	400	299	....	250	358	452	1010	299	147	189	256
12....	364	388	304	....	250	353	522	1080	290	142	175	249
13....	358	380	328	....	250	364	581	1040	295	131	172	237
14....	364	380	364	....	250	376	558	827	323	122	184	230
15....	358	380	348	....	250	364	619	757	333	116	216	230
16....	348	375	358	....	260	358	558	766	304	114	199	226
17....	370	370	358	....	260	358	596	800	237	112	132	216
18....	382	370	348	....	260	358	611	800	219	114	195	216
19....	364	360	353	....	260	348	634	809	184	116	192	219
20....	348	355	364	....	260	358	682	783	167	145	202	237
21....	358	350	353	....	290	358	740	723	186	154	216	245
22....	364	355	348	....	290	353	766	723	170	178	209	230
23....	364	358	358	....	290	348	731	588	169	167	202	219
24....	364	358	250	....	290	358	740	508	169	159	199	212
25....	376	358	340	....	311	358	791	459	168	157	199	282
26....	370	358	335	....	308	358	774	452	168	162	189	290
27....	348	353	330	218	328	364	634	479	167	154	186	277
28....	353	364	330	....	340	388	566	459	167	142	192	277
29....	353	370	320	....	....	376	611	400	152	136	260	290
30....	353	364	320	....	....	364	619	529	167	131	260	286
31....	358	....	310	....	....	388	....	536	....	129	260	....
Total	11166	10993	10505	....	7397	11565	16448	22038	7918	4654	5975	7324
Mean..	360	366	339	250	264	373	548	711	264	150	193	244
Max...	382	412	358	....	340	472	791	1080	479	206	260	290
Min...	348	338	299	....	....	343	313	400	152	112	142	212
Acre-ft.	22150	21800	20840	15370	14670	22940	32620	43710	15710	9230	11850	14530

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of White River Near Watson, Utah, for Year Ending Sept. 30, 1933.
Drainage Area, 4,230 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	428	440	....	....	....	....	....	737	3130	894	2280	316
2....	440	428	....	....	....	....	....	600	3350	798	1220	320
3....	428	440	....	....	....	....	....	592	3800	754	562	325
4....	428	446	....	....	....	....	....	608	3460	695	522	330
5....	428	452	....	....	....	....	....	615	3130	687	482	335
6....	428	446	....	....	....	....	....	622	3350	670	470	330
7....	434	428	....	....	....	....	....	737	3350	754	452	330
8....	434	446	....	....	....	....	....	827	3020	998	440	350
9....	440	428	....	....	....	....	....	925	2620	798	428	379
10....	555	428	....	....	....	....	....	670	2420	646	406	385
11....	501	440	....	....	....	....	....	654	2820	894	385	401
12....	482	428	....	....	....	....	....	615	3130	687	369	390
13....	470	428	....	....	....	....	....	555	3350	592	374	390
14....	446	428	....	....	....	....	....	535	3570	522	585	396
15....	428	428	....	....	....	....	....	508	3350	476	320	379
16....	417	428	....	....	....	....	....	501	3240	446	325	379
17....	412	428	....	....	....	....	446	495	3020	458	316	374
18....	464	428	....	....	....	....	476	535	3020	555	302	364
19....	488	428	....	....	....	....	542	670	2920	428	276	359
20....	452	428	....	....	....	....	578	1050	2720	428	312	364
21....	446	428	....	....	....	....	600	1500	2620	401	294	364
22....	446	428	....	....	....	....	562	1970	2330	390	289	369
23....	458	417	....	....	....	....	562	2150	2330	374	284	374
24....	476	423	....	....	....	....	542	1580	2060	374	289	369
25....	458	423	....	....	....	....	522	1300	1730	359	283	369
26....	446	420	....	....	....	....	508	1500	1650	350	268	374
27....	440	420	....	....	....	....	508	1790	1500	340	340	406
28....	446	400	....	....	....	....	542	2420	1300	335	369	423
29....	446	400	....	....	....	....	608	2720	1110	330	335	423
30....	440	400	....	....	....	....	781	2820	946	325	340	423
31....	440	....	....	....	....	....	....	3020	....	359	325	....
Total	13945	12833	....	....	....	....	....	35821	80346	17117	14048	11090
Mean..	450	428	....	....	....	....	....	1160	2680	552	453	370
Max...	555	452	....	....	....	....	....	3020	3800	998	2280	423
Min...	412	400	....	....	....	....	....	495	946	325	268	316
Acre-ft.	27700	25500	....	....	....	....	....	71300	159000	33900	27900	22000

Discharge of White River Near Watson, Utah, for Year Ending Sept. 30, 1934.
Drainage Area, 4,230 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	363	593	454	....	460	436	424	624	479	72	77	224
2....	363	498	454	....	500	430	454	680	442	66	76	206
3....	363	460	442	....	540	424	454	712	390	66	70	191
4....	368	454	442	....	580	460	460	744	368	82	84	202
5....	379	454	424	....	656	436	454	744	352	82	94	198
6....	368	448	424	....	704	418	442	656	328	94	86	202
7....	379	412	430	....	888	442	430	608	314	105	100	181
8....	374	436	410	....	992	454	412	680	314	96	117	498
9....	368	460	410	....	800	430	436	760	300	80	149	792
10....	368	442	410	....	696	395	436	840	300	96	406	338
11....	363	448	420	....	544	412	448	920	286	206	220	295
12....	363	442	420	....	498	401	454	947	286	119	195	282
13....	374	436	420	....	472	401	504	956	269	96	165	300
14....	379	430	420	....	485	406	572	947	232	84	191	278
15....	374	430	420	....	485	406	579	856	213	80	232	264
16....	384	430	370	....	485	412	593	736	195	72	291	244
17....	379	424	370	....	460	418	616	720	174	62	269	244
18....	390	424	370	....	454	418	572	752	165	57	220	248
19....	395	424	370	....	454	406	565	752	149	53	236	228
20....	401	418	370	....	406	384	600	768	149	74	232	220
21....	401	418	400	....	430	401	664	776	141	70	256	252
22....	401	424	400	....	479	412	712	720	132	248	209	236
23....	406	418	400	....	448	412	752	672	119	395	206	228
24....	406	436	400	....	430	418	776	608	127	184	191	198
25....	412	430	400	....	436	418	752	558	117	132	181	198
26....	412	418	420	426	442	412	784	485	107	114	184	295
27....	412	418	420	....	436	412	832	460	92	114	181	314
28....	412	418	420	....	436	412	752	442	92	105	188	309
29....	406	436	420	....	....	412	648	424	86	102	390	328
30....	406	442	420	....	....	418	608	395	80	90	379	328
31....	412	....	420	....	....	430	....	395	....	80	244	....
Total	11981	13221	12770	....	15096	12946	17185	21337	6798	3376	6119	8321
Mean..	386	441	412	400	539	418	573	688	227	109	197	277
Max...	412	593	454	....	992	460	832	956	479	395	406	792
Min...	363	412	....	....	406	384	412	395	80	53	70	181
Acre-ft.	23760	26220	25330	24600	29940	25680	34090	42320	13480	6700	12140	16500

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Yampa River at Steamboat Springs for Year Ending Sept. 30, 1933.
Drainage Area, 500 Square Miles. Altitude, 6,680 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	99	134	116				247	919	3500	510	86	94
2....	105	134	116				250	840	3900	482	86	94
3....	108	136	112				283	766	3700	430	86	91
4....	114	136	128				382	730	3500	338	88	89
5....	122	136	139				234	840	3830	319	89	86
6....	128	136	139				234	919	3960	311	86	88
7....	139	136	139				300	730	3900	308	86	86
8....	139	136	136				311	630	3500	293	108	84
9....	141	136	132				290	580	3380	283	128	86
10....	139	136					244	598	3960	266	122	83
11....	136	141					211	630	3900	228	108	81
12....	132	141					205	527	4160	211	98	84
13....	128	145					200	466	3960	197	94	81
14....	124	145					197	472	3700	186	86	80
15....	120	147					192	456	3640	166	83	78
16....	108	143					234	482	3380	154	78	78
17....	108	139					327	598	3120	141	71	75
18....	118	132					568	919	2860	139	64	75
19....	130	130					598	1320	2620	136	83	78
20....	128	126					430	1690	2210	126	99	81
21....	128	126					456	1990	1790	118	91	78
22....	139	124					696	2160	1590	107	83	72
23....	136	120					766	1840	1410	103	83	78
24....	136	122					919	1500	1180	98	71	83
25....	134	120					1140	1460	1050	98	61	78
26....	132	120					1230	1740	919	94	68	92
27....	132	118					1180	2160	766	94	103	88
28....	130	118				132	1230	2500	730	88	126	89
29....	132	120				143	1280	2680	598	89	122	86
30....	132	118				166	1050	2920	568	92	108	83
31....	130					250		3180		91	98	
Total	3927	3951					15884	39242	81281	6296	2843	2499
Mean.	127	132					529	1270	2710	203	91.7	83.3
Max..	141	147					1280	3180	4160	510	128	94
Min..	99	118					192	456	568	88	61	72
Acre-ft.	7810	7860					31500	78100	161000	12500	5640	4960

Discharge of Yampa River at Steamboat Springs for Year Ending Sept. 30, 1934.
Drainage Area, 500 Square Miles. Altitude, 6,680 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	90	95	92				274	770	482	43	19	24
2....	90	99	93				240	768	337	40	19	22
3....	90	106	92				224	723	296	35	19	19
4....	84	106	88				220	723	280	33	19	14
5....	84	106	86				217	775	249	30	22	14
6....	86	108	79				214	882	227	27	22	11
7....	86	92	79				227	984	238	22	22	7
8....	92	86	79				249	1070	200	19	22	4
9....	88	101	84				286	1180	200	11	100	20
10....	88	93	84			146	315	1260	175	11	125	25
11....	90	99	81			146	384	1290	150	11	126	30
12....	90	99	74			154	429	1190	127	11	108	30
13....	88	101	79			160	453	860	120	10	84	20
14....	90	101	86			175	487	782	103	9	70	16
15....	93	103	90			177	491	768	99	8	61	18
16....	88	99	86			179	421	768	103	6	61	14
17....	84	99	84			189	478	704	92	6	72	10
18....	84	97	92			189	532	672	95	6	75	13
19....	83	95				196	595	655	77	6	70	10
20....	79	93				222	694	565	66	8	61	10
21....	79	95				227	694	522	61	9	54	15
22....	81	97				266	704	461	59	11	52	20
23....	83	90				283	694	414	54	11	48	30
24....	84	86				289	699	388	54	11	48	25
25....	83	83				286	730	377	52	11	48	30
26....	88	79				312	730	362	52	13	45	37
27....	92	75				302	742	351	50	16	40	47
28....	95	77				351	782	325	50	14	35	50
29....	95	83				362	780	299	47	17	30	50
30....	93	90				362	780	482	45	19	25	50
31....	93					366		710		19	27	
Total	2713	2833					14765	22080	4240	503	1623	685
Mean.	87.5	94.4	86	80	98	213	492	712	141	16.2	52.7	22.8
Max..	95	108					782	1290	482	43	176	50
Min..	79	75					214	299	45	6	19	4
Acre-ft.	5380	5620	5290	4920	5440	13100	29300	43800	8390	996	3240	1360

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Yampa River Near Maybell for Year Ending Sept. 30, 1933.
Drainage Area, 3,670 Square Miles. Altitude, 5,900 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	246	362	441	.....	.....	.....	.....	4640	9950	2240	280	222
2....	246	362	379	.....	.....	.....	.....	4030	10400	1900	286	184
3....	241	362	379	.....	.....	.....	.....	3720	10900	1670	455	164
4....	236	362	379	.....	.....	.....	.....	1490	3620	10600	1450	560
5....	227	362	368	.....	.....	.....	.....	1640	3810	9860	1380	425
6....	227	362	379	.....	.....	.....	.....	1360	4050	9860	1380	455
7....	227	391	408	.....	.....	.....	.....	1120	4390	9970	1260	391
8....	227	379	408	.....	.....	.....	.....	1280	3900	9640	1200	391
9....	260	362	379	.....	.....	.....	.....	1480	3240	8640	1260	362
10....	291	368	322	.....	.....	.....	.....	950	2940	8020	1140	351
11....	301	420	270	.....	.....	.....	.....	794	2560	9880	1030	346
12....	362	420	351	.....	.....	.....	.....	749	2580	9420	930	333
13....	362	420	.....	.....	.....	.....	.....	749	2300	9640	830	291
14....	374	391	.....	.....	.....	.....	.....	740	2130	9530	740	265
15....	391	391	.....	.....	.....	.....	.....	731	1960	8640	695	246
16....	379	397	.....	.....	.....	.....	.....	677	1960	8640	605	222
17....	379	374	.....	.....	.....	.....	.....	758	2150	8220	605	204
18....	379	385	.....	.....	.....	.....	.....	1210	2780	8020	525	188
19....	379	420	.....	.....	.....	.....	.....	2250	4260	7500	525	176
20....	385	414	.....	.....	.....	.....	.....	3000	5880	7200	455	164
21....	379	414	.....	.....	.....	.....	.....	1920	7040	6620	455	168
22....	427	420	.....	.....	.....	.....	.....	1920	8080	5950	391	172
23....	497	414	.....	.....	.....	.....	.....	1840	8720	5320	362	213
24....	497	385	.....	.....	.....	.....	.....	2710	7660	4960	357	192
25....	427	374	.....	.....	.....	.....	.....	3200	6480	4340	346	172
26....	385	385	.....	.....	.....	.....	.....	3400	6390	3930	333	161
27....	368	397	.....	.....	.....	.....	.....	3790	7260	3680	306	176
28....	368	414	.....	.....	.....	.....	.....	4020	8390	3180	286	172
29....	368	420	.....	.....	.....	.....	.....	4270	8910	2880	275	192
30....	368	434	.....	.....	.....	.....	.....	4800	9000	2690	270	160
31....	368	.....	.....	.....	.....	.....	.....	9420	.....	286	160	.....
Total	10571	11761	.....	.....	.....	.....	.....	154240	227180	25487	8329	4877
Mean...	341	392	.....	.....	.....	.....	.....	1890	4980	7570	822	269
Max....	497	434	.....	.....	.....	.....	.....	4800	9420	10900	2240	560
Min....	227	362	.....	.....	.....	.....	.....	677	1960	2690	270	160
Acre-ft.	21000	23300	.....	.....	.....	.....	.....	112000	306000	450000	50500	16500

Discharge of Yampa River Near Maybell for Year Ending Sept. 30, 1934.
Drainage Area, 3,670 Square Miles. Altitude, 5,900 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	331	205	.....	.....	.....	.....	.....	974	2320	2230	49	3
2....	278	205	.....	.....	.....	.....	.....	985	2400	1920	44	3
3....	240	191	.....	.....	.....	.....	.....	880	2290	1400	33	3
4....	214	191	.....	.....	.....	.....	.....	840	2240	1170	36	3
5....	205	191	.....	.....	.....	.....	.....	718	2320	1050	35	5
6....	200	196	.....	.....	.....	.....	.....	672	2370	952	31	10
7....	205	196	.....	.....	.....	.....	.....	635	2980	850	28	20
8....	205	168	.....	.....	.....	.....	.....	561	3540	792	26	18
9....	191	209	.....	.....	.....	.....	.....	589	3650	745	24	16
10....	182	230	.....	.....	.....	.....	.....	690	3700	672	24	15
11....	182	235	.....	.....	.....	.....	.....	900	3610	589	23	22
12....	177	205	.....	.....	.....	.....	.....	1060	3320	544	22	6
13....	173	191	.....	.....	.....	.....	.....	380	1360	3500	478	7
14....	173	190	.....	.....	.....	.....	.....	387	1700	3180	394	12
15....	168	189	.....	.....	.....	.....	.....	432	1820	2430	345	8
16....	161	188	.....	.....	.....	.....	.....	495	1940	2180	295	4
17....	157	187	.....	.....	.....	.....	.....	598	1770	2340	250	2
18....	157	186	.....	.....	.....	.....	.....	616	1490	2500	235	2
19....	157	196	.....	.....	.....	.....	.....	536	1480	2470	219	2
20....	157	200	.....	.....	.....	.....	.....	455	1710	2540	209	6
21....	157	173	.....	.....	.....	.....	.....	470	1920	2450	186	10
22....	161	161	.....	.....	.....	.....	.....	607	2190	2260	157	55
23....	164	157	.....	.....	.....	.....	.....	699	2480	2150	132	28
24....	164	182	.....	.....	.....	.....	.....	764	2520	1960	119	21
25....	161	200	.....	.....	.....	.....	.....	792	2750	1740	110	27
26....	157	205	.....	.....	.....	.....	.....	755	2930	1640	98	23
27....	157	191	.....	.....	.....	.....	.....	764	2910	1580	82	15
28....	157	173	.....	.....	.....	.....	.....	802	2240	1480	80	10
29....	157	170	.....	.....	.....	.....	.....	870	2120	1410	78	5
30....	157	170	.....	.....	.....	.....	.....	900	2190	1450	63	3
31....	161	.....	.....	.....	.....	.....	.....	952	1940	.....	3	30
Total	5666	5731	.....	.....	.....	.....	.....	47024	75940	16444	632	820
Mean...	183	191	.....	.....	.....	.....	.....	535	1570	2450	548	20.4
Max....	331	235	.....	.....	.....	.....	.....	2930	3700	2230	55	65
Min....	157	157	.....	.....	.....	.....	.....	561	1410	63	2	3
Acre-ft.	11300	11400	.....	.....	.....	.....	.....	32900	93400	151000	32600	1250

Unless otherwise noted, all discharges are in cubic feet per second.

SAN JUAN RIVER DRAINAGE

Cooperation—All stations maintained in cooperation with the United States Geological Survey.

†In Cooperation with State of New Mexico.

†SAN JUAN RIVER AT ROSA, NEW MEXICO

Location—In Sec. 21, T. 32 N., R. 5 W., at Rosa, about 300 yards above highway bridge and about one-fourth mile below mouth of Piedra River.

Records Available—October 1, 1920, to September 30, 1934. From 1895 to 1899 and August 21, 1910, to September 30, 1920, a station was maintained at Arboles. The San Juan River at Arboles, plus the Piedra River at Arboles, gives the flow of the San Juan River at Rosa.

Gage—Automatic recording gage.

Accuracy—Records considered good.

†SAN JUAN RIVER NEAR SHIPROCK, NEW MEXICO

Location—In Sec. 22, T. 30 N., R. 18 W., three miles northwest of Shiprock and about six miles below mouth of Chaco River. Prior to Oct. 26, 1933, this station was located about three miles upstream and was called San Juan River at Shiprock, N. M.

Records Available—February 15, 1930, to September 30, 1931; October 1, 1933, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered poor.

SAN JUAN RIVER NEAR BLUFF, UTAH

Location—In Sec. 7, T. 42 S., R. 19 E., one-fourth mile below Gypsum Creek and twenty-five miles southwest of Bluff, Utah.

Records Available—October 30, 1914, to September 30, 1917 (See U. S. G. S. Water Supply papers); February 19, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

PINE OR LOS PINOS RIVER NEAR BAYFIELD

Location—In Sec. 26, T. 36 N., R. 7 W., one-quarter mile below mouth of Red Creek and nine miles north of Bayfield.

Records Available—October 26, 1927, to September 30, 1934. From June 1, 1926, to June 24, 1927, a station was maintained three miles above this location.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1926-34): 3,220 second-feet July 31, 1929 (gage height, 5.48 feet).

†PINE OR LOS PINOS RIVER NEAR IGNACIO

Location—In Sec. 5, T. 33 N., R. 7 W., three-fourths of a mile above Ignacio and about two miles above Rock Creek.

Records Available—April 22, 1899, to October 31, 1903; September 1, 1910, to November 30, 1912; March 10, 1913, to September 30, 1932.

Gage—Automatic recording gage.

Accuracy—Records considered good.

ANIMAS RIVER AT DURANGO

Location—In Sec. 20, T. 35 N., R. 9 W., at the Western Colorado Power Company's power plant in Durango.

Records Available—June 20, 1895, to December 31, 1905; January 1, 1910, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1895-1900, 1901-05, 1909-34): About 20,000 second-feet October 5, 1911 (gage height about 14.4 feet).

CASCADE CREEK NEAR TACOMA

Location—In Sec. 11, T. 39 N., R. 9 W., near where the Durango-Silverton highway crosses Cascade Creek.

Records Available—January 1, 1915, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Cooperation—Complete record furnished by the Western Colorado Power Company.

FLORIDA RIVER NEAR DURANGO

Location—In Sec. 4, T. 35 N., R. 8 W., about eleven miles northeast of Durango and just below mouth of Red Creek.

Records Available—May 21, 1899, to July 31, 1899; April 1, 1901, to October 5, 1903; September 8, 1910, to September 30, 1924; April 1, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1899, 1901-03, 1910-24, 1927-34): 4,640 second-feet June 28, 1927 (gage height 4.50 feet).

LIGHTNER CREEK NEAR DURANGO

Location—In Sec. 26, T. 35 N., R. 10 W., three miles west of Durango at concrete highway bridge.

Records Available—July 1, 1927, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum discharge (1927-34): 655 second-feet April 4, 1929 (gage height, 2.71 feet).

LA PLATA RIVER AT HESPERUS

Location—In Sec. 14, T. 35 N., R. 11 W., at weir one-eighth mile above highway at Hesperus.

Records Available—June 15, 1904, to August 11, 1904; April 1, 1906, to August 11, 1906; August 24, 1910, to December 31, 1910; May 25, 1917, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1904-06, 1910, 1917-34): 1,460 second-feet June 28, 1927 (gage height, 4.60 feet former datum).

LA PLATA RIVER AT COLORADO-NEW MEXICO LINE

Location—In Sec. 10, T. 32 N., R. 13 W., three hundred feet south of the Colorado-New Mexico line at Hill Ranch, three miles north of Pendleton, New Mexico.

Records Available—February 19, 1920, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1920-34): 4,750 second-feet August 24, 1927 (gage height 11.1 feet).

CHERRY CREEK AT MOUTH NEAR RED MESA

Location—In Sec. 7, T. 33 N., R. 12 W., at bridge one-half mile above mouth and two miles northwest of Red Mesa.

Records Available—March 21, 1928, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1928-34): 800 second-feet April 5, 1929 (gage height, 5.00 feet).

MANCOS RIVER NEAR MANCOS

Location—In Sec. 23, T. 36 N., R. 13 W., N. M. P. M., just below the junction of the middle and west forks of Mancos River and two miles east of town of Mancos.

Records Available—October 1, 1931, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered good.

Maximum discharge (1931-34): 502 second-feet May 15, 1932 (gage height 3.72 feet).

MANCOS RIVER NEAR TOWAOC

Location—At Mancos River Trading Post in Sec. 15, T. 32 S., R. 18 W., N. M. P. M., twelve miles south of Towaoe.

Records Available—February 1, 1921, to September 30, 1934.

Gage—Automatic recording gage.

Accuracy—Records considered fair.

Maximum discharge (1921-34): 1,990 second-feet August 25, 1921.

Discharge of San Juan River at Rosa, N. M., for Year Ending Sept. 30, 1923.
Drainage Area, 1,990 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	260	240	150	150	140	250	788	770	4840	1120	463	250
2....	250	235	150	150	140	250	905	905	5330	980	439	250
3....	250	240	150	150	140	250	990	869	4480	887	403	240
4....	260	240	151	150	140	250	1130	990	4120	923	391	220
5....	245	230	147	150	128	250	860	1020	4120	980	682	205
6....	235	220	151	150	120	300	708	1000	3620	905	610	196
7....	230	220	150	150	120	300	698	887	3300	1390	650	186
8....	240	215	150	150	120	300	666	851	2540	1240	674	230
9....	322	173	150	150	120	300	666	833	3060	1260	596	397
10....	355	182	150	147	120	300	618	746	3870	1010	534	618
11....	316	173	130	145	120	350	554	730	4300	932	450	682
12....	280	160	130	145	120	350	540	730	4390	980	400	914
13....	260	168	130	142	120	350	568	658	4210	833	350	650
14....	245	182	113	150	120	350	527	634	3620	754	325	1430
15....	235	182	150	150	120	350	514	603	3540	698	300	1330
16....	225	168	150	170	150	306	589	618	3300	626	275	869
17....	220	168	150	170	150	355	642	842	3380	658	250	666
18....	220	173	150	170	150	361	730	1310	3460	650	255	1080
19....	225	173	150	170	150	328	815	2040	3540	547	250	1700
20....	230	173	150	170	150	311	722	2760	3140	514	333	905
21....	255	151	150	170	200	333	634	3380	2980	603	290	754
22....	421	147	150	170	200	344	596	3140	2840	626	270	1050
23....	427	147	150	170	200	300	575	2180	2610	596	270	770
24....	373	135	150	170	200	306	568	2040	2610	582	245	642
25....	355	155	150	170	200	361	568	2320	2200	582	235	561
26....	295	164	150	150	250	445	575	2610	1800	547	230	508
27....	285	168	150	150	250	596	582	3300	1560	508	245	463
28....	290	168	150	150	250	730	674	3300	1510	433	311	421
29....	290	164	150	150	....	914	851	3870	1390	373	300	385
30....	275	155	150	150	....	878	815	4300	1230	350	255	355
31....	265	....	150	150	....	738	....	4660	....	355	255	....
Total	8634	5469	4552	4829	4388	12106	20668	54896	96890	23442	11536	18927
Mean.	279	182	147	156	157	391	689	1770	3230	756	372	631
Max...	427	240	....	....	....	914	1130	4660	5330	1390	682	1700
Min...	220	135	....	....	....	....	514	603	1230	350	230	186
Acre-ft.	17100	10800	9030	9580	8700	24000	41000	109000	192000	46500	22900	37500

Discharge of San Juan River at Rosa, N. M., for Year Ending Sept. 30, 1934.
Drainage Area, 1,990 Square Miles. Altitude, . . . Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	338	240	275	240	194	255	760	1780	1160	114	181	392
2....	333	280	226	250	194	235	711	1530	1000	117	161	260
3....	355	260	216	240	212	270	693	1320	800	114	138	203
4....	451	250	173	212	226	275	590	1190	700	98	134	181
5....	540	240	170	150	245	292	566	1180	600	92	128	161
6....	932	240	170	150	275	353	550	1220	550	83	124	157
7....	589	230	170	150	275	426	505	1660	450	80	120	153
8....	508	230	170	150	245	433	528	1780	400	80	138	165
9....	463	230	170	150	235	379	639	1980	350	80	128	185
10....	482	220	170	150	226	386	908	2270	300	83	107	203
11....	433	220	170	150	177	426	1260	2310	275	104	101	169
12....	427	220	170	150	173	490	1610	2200	260	114	120	157
13....	570	210	212	150	198	550	1580	2020	230	101	149	161
14....	500	200	250	150	216	614	1410	1750	212	104	157	153
15....	421	200	216	200	230	639	1400	1470	185	80	153	142
16....	370	210	150	200	235	702	1470	1350	177	80	165	134
17....	350	215	150	200	265	684	1410	1260	173	80	173	131
18....	330	210	150	200	265	542	1240	1170	173	80	181	124
19....	310	215	150	200	221	505	1180	1050	161	80	196	128
20....	295	196	150	200	212	582	1250	942	153	150	161	131
21....	290	196	150	200	216	614	1440	842	173	150	173	134
22....	280	186	210	200	208	606	1750	770	161	150	208	145
23....	270	187	210	200	216	590	1780	750	145	150	250	401
24....	270	182	210	200	392	590	1850	684	161	150	198	3320
25....	260	183	250	200	280	606	2090	648	181	500	161	853
26....	250	177	250	200	255	630	2140	648	169	500	240	550
27....	250	177	250	208	255	606	2020	630	149	500	322	426
28....	240	181	250	203	275	622	1940	630	128	235	250	346
29....	220	212	250	203	....	622	1850	590	114	270	203	286
30....	230	270	250	198	....	702	1720	730	107	203	245	250
31....	230	....	230	208	....	810	....	1280	....	212	245	....
Total	11787	6462	6188	5862	6616	16036	38840	39634	9797	4934	5404	10201
Mean.	380	215	200	189	236	517	1295	1279	327	159	174	340
Max...	932	280	....	....	392	810	2140	2310	1160	....	322	3320
Min...	220	177	....	....	173	235	505	590	107	....	101	124
Acre-ft.	23380	12820	12270	11630	13120	31810	77040	78610	19430	9790	10720	20230

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Juan River at Shiprock, N. M., for Year Ending Sept. 30, 1933.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	750	660	520	500	550	1100	1100	1350	13700	3000	750	150
2....	750	650	520	500	550	1100	1250	1350	16000	2700	800	150
3....	750	630	520	504	513	1100	1400	1550	15000	2500	850	150
4....	750	620	520	500	520	1100	1760	1600	12000	2900	950	150
5....	695	620	520	500	520	1100	2320	1650	11500	3200	1100	152
6....	725	630	480	500	516	1160	2000	1650	10000	3740	1530	145
7....	665	636	480	500	450	1360	1400	1600	8330	5170	2700	128
8....	650	630	480	500	450	1420	1240	1500	7740	4840	2530	128
9....	610	610	480	500	450	1340	1200	1420	6420	5520	2030	1120
10....	680	596	480	500	450	1690	1100	1710	10000	4840	1730	8460
11....	948	580	450	500	600	2060	1050	1530	11200	3410	1470	1830
12....	882	560	450	500	600	2160	1000	1640	11600	3530	1240	1880
13....	833	560	450	500	600	1980	1000	1600	11200	4120	1020	3260
14....	755	580	450	500	600	1160	1050	1420	9520	2980	800	4500
15....	680	600	700	500	600	1090	1100	1440	9000	2620	785	6240
16....	623	636	700	700	650	950	1100	1400	8720	2300	400	2530
17....	610	582	700	700	650	950	1100	1420	9120	2100	274	1440
18....	600	610	770	700	650	1000	1150	2060	9920	1900	224	2510
19....	600	610	680	700	650	900	1200	3210	9120	1800	208	3290
20....	600	582	665	700	650	850	1470	6000	9720	1440	201	1930
21....	600	582	600	700	750	800	1300	8140	8720	1400	201	1140
22....	1260	556	600	700	750	750	1070	8140	9120	1450	360	1570
23....	932	528	600	700	750	740	1020	7000	7170	1510	320	2130
24....	1140	542	600	700	750	665	1000	6000	6420	1360	300	899
25....	932	528	600	700	750	665	1000	5000	5520	2340	292	948
26....	916	469	600	600	900	665	950	6000	5170	1860	224	1060
27....	800	480	600	600	900	800	950	7000	4840	1180	200	816
28....	750	504	556	600	900	950	950	8500	4120	1110	224	569
29....	720	582	569	600	....	1100	1000	9500	3560	916	250	515
30....	700	582	556	600	....	1150	1300	11000	3330	916	200	582
31....	680	....	528	600	....	1160	....	12500	....	740	150	....
Total	23586	17535	17424	18104	17669	35015	36530	125880	167780	79392	24313	50372
Mean.	761	584	562	584	631	1130	1220	4060	8930	2560	784	1680
Max....	1260	660	....	....	....	2160	2320	12500	16000	5520	2700	8460
Min....	600	469	....	....	....	665	950	1350	3330	740	150	128
Acre-ft.	46800	34800	34600	35900	35000	69600	72500	250000	531000	157000	48200	99900

Discharge of San Juan River Near Shiprock, N. M., for Year Ending Sept. 30, 1934.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	636	622	520	734	548	702	1630	3000	2760	20	170	492
2....	680	606	548	894	534	804	1560	3000	2000	10	150	576
3....	680	702	622	990	606	670	1460	3000	1500	10	138	548
4....	800	718	520	950	622	562	1310	3000	1500	10	120	390
5....	2590	702	520	950	548	622	1530	3000	1500	10	114	390
6....	2870	718	478	702	548	606	1400	3500	1300	10	108	250
7....	2420	638	438	534	576	734	1660	3500	1100	10	102	280
8....	899	654	426	450	686	734	1780	3500	1000	108	320	638
9....	770	734	450	450	734	768	1660	3500	900	138	350	548
10....	695	750	478	402	840	654	1680	3500	800	378	158	426
11....	2500	718	562	562	858	654	1880	5000	718	250	114	438
12....	1000	750	590	654	768	670	2280	5000	622	132	70	492
13....	800	750	606	654	734	638	2420	5000	492	114	42	804
14....	916	670	576	492	654	930	2500	5000	414	102	66	840
15....	2000	606	638	670	718	950	2500	5000	342	86	342	654
16....	983	576	638	700	750	970	2500	3000	260	50	230	492
17....	1130	622	606	700	858	1260	2500	3000	182	38	114	402
18....	1110	622	414	700	734	990	2500	3000	174	38	182	354
19....	1070	638	366	700	686	750	2500	3000	138	50	150	320
20....	1070	590	520	700	718	858	2500	3000	108	138	90	310
21....	1000	622	606	718	654	1150	2500	1680	86	174	190	330
22....	948	686	670	702	638	1220	4000	1930	50	876	198	366
23....	916	734	718	686	590	1400	4000	1860	30	1680	280	478
24....	882	576	718	686	638	1420	4000	1730	10	426	182	270
25....	816	562	686	750	970	1350	4000	1310	30	310	198	3930
26....	822	576	654	786	1010	1200	4000	1330	40	700	166	2000
27....	718	464	734	670	734	1310	4000	1440	45	800	944	1500
28....	638	438	876	576	718	1440	4000	1910	43	500	638	1000
29....	622	654	804	576	....	1660	4000	2170	54	378	1010	900
30....	638	1050	670	562	....	1580	4000	2330	50	300	1310	900
31....	654	....	702	506	....	1730	....	3200	....	200	478	....
Total	34273	19748	18354	20806	19672	30986	78250	93390	18253	8046	8764	23718
Mean.	1106	658	592	671	703	1000	2608	3013	608	260	283	791
Max....	2870	1050	876	990	1010	1730	....	....	2760	1680	1310	3930
Min....	622	438	366	402	534	562	1310	1310	10	10	42	250
Acre-ft.	67980	39170	36400	41270	39020	61460	155200	185200	36200	15960	17380	47040

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of San Juan River Near Bluff, Utah, for Year Ending Sept. 30, 1933.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	798	769	631	300	800	2490	1300	1260	9350	2920	631	118
2....	762	727	613	290	750	2370	1140	1480	10300	2490	655	92
3....	720	720	607	251	700	2200	1060	1440	11900	2140	565	92
4....	694	727	625	328	700	1820	1140	1400	11700	2030	524	94
5....	734	734	674	308	700	1400	1440	1530	9540	2140	441	94
6....	668	700	655	355	700	1140	1770	1480	8780	2550	674	86
7....	661	681	565	350	650	1100	1720	1530	8400	3520	1820	82
8....	625	700	530	346	600	1220	1350	1580	7140	5000	3180	100
9....	776	681	541	304	600	1300	1100	1480	5800	3800	2610	1260
10....	741	649	535	320	600	1350	1100	1400	4840	4530	1530	5960
11....	727	681	520	355	600	1480	1060	1480	6800	3800	1060	7320
12....	741	694	501	373	650	1620	1020	1350	8970	3060	842	3520
13....	805	643	480	380	700	1670	880	1220	9540	2920	643	2430
14....	776	631	460	343	700	1530	805	1220	8970	3250	577	2730
15....	755	601	450	377	750	1300	948	1140	8220	2140	452	3250
16....	734	577	440	419	800	1060	948	1100	7320	1720	430	3660
17....	694	571	430	404	800	956	865	980	6970	1530	357	2610
18....	688	589	420	422	800	925	748	776	7140	1720	261	1980
19....	681	583	411	362	800	842	956	865	7320	1770	245	2920
20....	649	571	422	400	850	820	1140	1920	6970	1260	231	3660
21....	681	583	431	450	850	790	1440	3660	7320	1060	308	5640
22....	727	595	342	500	850	790	1480	5640	7320	858	375	5320
23....	1620	613	268	550	900	720	1260	6460	7320	895	257	2730
24....	1100	601	280	600	900	688	1060	5640	6970	948	166	2370
25....	1060	601	300	700	1000	713	980	4230	5960	1580	231	1870
26....	1010	583	330	800	1500	694	820	3520	5160	2490	172	1620
27....	932	595	278	800	1980	649	783	3380	4530	1480	163	1440
28....	910	524	206	800	2030	649	783	4530	4080	980	157	1260
29....	828	571	134	800	....	655	842	6290	3520	948	160	1100
30....	776	583	26	800	....	873	842	7140	3180	748	182	1020
31....	805	....	310	800	....	1100	....	8400	....	619	166	....
Total	24878	19078	13415	14587	24260	36914	32780	85521	221330	66896	20065	66428
Mean.	802	636	433	471	866	1190	1090	2760	7380	2160	647	2210
Acre-ft.	49300	37800	26600	29000	48100	73200	64900	170000	439000	133000	39800	132000

Discharge of San Juan River Near Bluff, Utah, for Year Ending Sept. 30, 1934.
Drainage Area, Square Miles. Altitude, Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	972	681	1920	714	442	613	707	3190	2670	1	154	910
2....	835	553	925	748	469	619	812	2990	2730	1	138	714
3....	1020	631	902	842	486	619	910	3660	1820	0	108	607
4....	1350	668	850	835	518	565	1150	3250	1530	0	95	508
5....	2030	755	748	707	535	513	1060	2610	1260	0	100	316
6....	5800	687	662	668	513	535	964	2200	1100	0	55	189
7....	5480	769	619	662	530	530	858	1920	956	0	45	112
8....	3380	741	565	458	513	452	762	2080	820	0	45	699
9....	1870	682	559	430	541	577	727	3120	720	0	147	547
10....	1670	637	530	316	571	619	649	3250	631	0	203	375
11....	1870	631	553	339	553	613	631	3380	547	0	183	321
12....	3060	595	553	375	571	637	700	4230	452	0	95	224
13....	1820	619	530	385	583	607	940	3940	366	0	80	281
14....	1300	674	577	362	496	601	1770	3800	370	2	65	547
15....	1580	607	643	436	496	637	2200	3660	265	30	424	491
16....	2430	607	662	458	458	762	2140	3250	203	20	502	366
17....	1480	577	681	649	518	805	2140	2610	192	10	339	169
18....	1140	559	502	565	535	769	2430	2550	175	8	175	151
19....	1060	513	458	681	513	948	2250	2490	125	4	118	140
20....	972	541	442	668	535	925	1980	2370	95	704	120	105
21....	900	571	425	589	571	762	1720	2200	70	1050	151	90
22....	828	541	571	601	565	707	1920	1720	60	769	265	85
23....	895	513	577	649	601	741	2610	1530	40	353	135	90
24....	818	553	595	619	835	828	3120	1480	35	1220	65	500
25....	741	547	583	565	713	880	2860	1300	24	518	125	1980
26....	812	474	643	559	842	812	3060	1140	18	273	55	3120
27....	835	496	655	565	932	842	3520	1060	10	745	192	1720
28....	805	518	707	559	700	820	3660	1000	9	1000	1030	1180
29....	769	502	662	571	....	783	3380	1180	9	880	4920	980
30....	720	1140	655	508	....	727	3250	1440	5	385	2370	940
31....	755	....	681	480	....	694	....	1530	....	224	1770	....
Total	49997	18582	20635	17563	16135	21542	54880	76130	17307	8197	14269	18457
Mean.	1613	619	666	567	576	695	1829	2456	577	264	460	615
Acre-ft.	99170	36860	40930	34840	32000	42730	108900	151000	34330	16260	28300	36610

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Pine River Near Bayfield for Year Ending Sept. 30, 1933.
Drainage Area, 284 Square Miles. Altitude, 7,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	140	105	....	....	....	81	140	173	1960	504	233	118
2....	137	107	....	....	....	82	165	190	2000	469	222	111
3....	145	107	....	....	....	85	197	185	1620	457	192	107
4....	138	104	....	....	....	85	236	182	1490	473	173	102
5....	132	102	....	....	....	86	212	194	1480	469	197	98
6....	127	102	....	....	....	88	190	204	1220	457	199	95
7....	126	104	....	....	....	87	190	192	1010	720	339	93
8....	129	93	....	....	....	86	182	199	948	754	291	95
9....	138	94	....	....	....	85	180	197	1300	740	265	192
10....	129	94	....	55	....	84	165	182	1570	566	222	366
11....	124	85	....	....	....	83	151	187	1600	524	192	461
12....	119	86	....	....	....	82	149	178	1470	549	174	457
13....	116	86	....	....	....	81	147	176	1310	465	156	362
14....	111	84	....	....	....	81	130	173	1190	428	149	508
15....	110	81	....	....	....	80	140	171	1130	376	140	473
16....	107	80	....	....	....	79	156	178	1160	356	130	376
17....	105	76	....	....	....	80	169	239	1260	410	127	312
18....	105	76	....	....	....	76	192	414	1130	383	123	373
19....	105	77	....	....	....	76	209	658	1130	327	162	396
20....	111	76	....	....	....	76	187	937	1130	315	156	318
21....	116	77	45	....	....	77	176	1090	1070	330	147	330
22....	137	76	....	....	....	75	167	984	1030	288	154	362
23....	132	74	....	....	....	75	154	720	1160	257	145	303
24....	126	74	....	....	....	75	154	663	960	239	137	276
25....	116	72	....	....	....	74	156	754	892	229	129	246
26....	113	70	....	....	....	76	153	1030	812	226	130	224
27....	116	68	....	....	....	81	158	1280	735	202	135	204
28....	116	66	....	....	71	89	204	1330	644	187	140	190
29....	113	66	....	....	....	110	206	1550	611	165	122	176
30....	113	66	....	....	....	119	199	1670	543	158	119	167
31....	107	....	....	....	....	121	....	1820	....	182	119	....
Total	3759	2528	....	....	....	2615	5214	18100	35565	12205	5330	7891
Mean.	121	84.3	50.0	55.0	58.0	84.4	174	584	1180	394	172	263
Max...	140	107	....	....	....	121	236	1820	2000	754	339	508
Min...	105	....	....	....	....	74	130	171	543	158	119	93
Acre-ft.	7440	5020	3070	3380	3220	5190	10400	35900	70200	24200	10600	15600

Discharge of Pine River Near Bayfield for Year Ending Sept. 30, 1934.
Drainage Area, 284 Square Miles. Altitude, 7,500 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	152	118	....	....	....	51	158	708	329	104	94	108
2....	156	117	....	....	....	....	160	570	291	100	87	103
3....	162	112	....	....	....	....	162	466	272	93	84	96
4....	188	112	....	....	....	....	140	401	249	92	90	90
5....	231	105	....	....	....	....	151	427	229	90	98	86
6....	344	108	....	....	....	....	140	588	221	86	93	86
7....	341	112	....	....	....	....	141	734	203	83	93	89
8....	311	110	....	....	....	85	151	693	184	88	94	91
9....	272	106	....	....	....	....	172	750	176	111	93	101
10....	258	105	....	....	....	....	214	877	174	114	89	96
11....	239	104	....	....	....	....	302	844	172	108	87	87
12....	231	100	....	....	....	....	412	781	166	101	91	84
13....	229	99	....	....	....	....	454	718	156	96	94	83
14....	217	96	....	....	....	....	442	610	149	87	100	81
15....	205	91	....	....	....	....	482	565	140	83	127	77
16....	190	86	....	....	....	120	502	556	134	86	119	75
17....	184	83	....	....	....	123	490	539	131	94	129	75
18....	178	83	....	....	....	114	404	506	123	94	141	72
19....	170	79	....	....	....	120	446	482	118	93	137	71
20....	166	78	....	....	....	123	588	423	114	90	165	71
21....	156	76	....	....	....	124	708	387	111	97	198	75
22....	143	75	....	....	....	126	765	360	106	111	175	72
23....	136	75	....	....	....	123	744	364	105	116	154	502
24....	131	75	....	....	....	123	791	320	123	113	136	775
25....	128	75	....	....	....	124	828	311	152	122	122	426
26....	126	74	....	....	....	124	796	314	126	144	119	304
27....	123	74	....	....	....	128	781	332	116	129	129	266
28....	122	75	....	....	....	129	755	360	111	113	122	228
29....	118	76	....	....	....	133	693	354	106	114	119	196
30....	114	75	....	....	....	141	663	408	95	116	113	177
31....	111	....	....	....	....	162	....	394	....	108	108	....
Total	5832	2754	....	....	....	....	13635	16142	4882	3176	3600	4743
Mean.	188	91.8	60	50	50	107	454	521	163	102	116	158
Max...	344	118	....	....	....	....	828	877	329	144	198	775
Min...	111	74	....	....	....	....	140	311	95	83	84	71
Acre-ft.	11600	5460	3690	3070	2780	6580	27000	32000	9700	6270	7130	9400

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Pine River Near Ignacio for Year Ending Sept. 30, 1933.
Drainage Area, 448 Square Miles. Altitude, 6,480 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	62	42	66	70	60	105	139	100	1670	133	5.2	3.9
2....	64	42	66	70	60	105	160	93	2040	85	5.6	3.4
3....	68	42	61	70	60	105	186	66	1420	53	5.2	3.9
4....	66	39	57	70	55	105	228	66	1190	55	5.2	3.4
5....	64	39	51	70	55	105	220	66	1290	61	5.2	3.0
6....	64	40	51	70	55	105	200	72	910	55	5.6	2.2
7....	59	39	57	70	55	105	186	72	663	228	4.5	1.7
8....	66	39	61	70	55	105	182	66	529	458	4.3	1.3
9....	82	34	60	87	55	105	182	66	761	561	2.6	1.0
10....	64	36	60	80	60	120	163	61	1320	370	2.1	4.2
11....	57	37	60	80	60	130	144	59	1400	297	1.7	1.69
12....	55	33	60	80	60	105	144	53	1250	309	1.2	2.57
13....	57	31	60	80	60	95	139	45	1040	206	9.8	1.53
14....	59	30	66	80	60	89	133	34	859	105	7.0	2.28
15....	55	33	70	80	60	82	130	29	753	57	6.3	2.61
16....	55	31	70	90	80	78	139	29	738	36	7.0	1.86
17....	53	33	70	90	80	78	153	26	850	30	5.6	1.30
18....	51	33	70	90	80	76	163	64	769	39	6.3	1.44
19....	53	33	70	90	80	76	182	210	708	23	5.6	2.61
20....	53	33	70	90	80	76	160	448	753	19	5.2	2.03
21....	53	30	70	90	90	80	147	700	685	17	3.4	2.10
22....	62	30	70	90	90	80	141	656	535	16	3.9	2.53
23....	64	27	70	90	90	76	139	410	738	14	4.7	2.06
24....	57	27	70	90	90	76	128	293	621	12	4.3	1.72
25....	51	27	70	90	90	74	122	297	529	14	4.3	1.47
26....	48	27	70	70	100	76	100	470	470	16	4.3	1.28
27....	45	30	70	70	100	89	91	876	361	10	4.3	95
28....	47	27	70	70	100	103	85	919	257	6.3	5.2	76
29....	45	29	70	70	....	117	105	1130	217	5.2	4.7	59
30....	48	33	70	70	....	125	103	1310	172	5.6	3.9	48
31....	43	....	70	70	....	128	....	1570	....	5.2	3.9	....
Total	1770	1006	2026	2447	2020	2976	4494	10356	25498	3301.3	295.7	3460.8
Mean.	57.1	33.5	65.4	78.9	72.1	96.0	150	334	850	106	9.54	115
Max...	82	42	....	....	....	130	228	1570	2040	561	4.5	261
Min....	43	27	....	....	....	74	85	26	172	5.2	3.4	1.3
Acre-ft.	3510	2000	4020	4850	4010	5900	8910	20500	50600	6550	587	6860

Discharge of Pine River Near Ignacio for Year Ending Sept. 30, 1934.
Drainage Area, 448 Square Miles. Altitude, 6,480 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	45	95	60	100	70	76	125	273	34	4.1	2.6	1.2
2....	50	95	61	100	70	74	115	217	30	4.1	2.3	9.0
3....	50	98	62	100	70	70	115	144	27	3.0	1.9	6.3
4....	50	85	65	100	70	45	100	87	23	3.0	3.4	5.6
5....	150	87	65	100	70	43	89	64	17	1.9	3.0	5.2
6....	150	82	65	90	70	50	89	130	12	1.8	2.6	4.9
7....	224	80	65	90	70	53	82	281	9.0	1.8	1.2	5.6
8....	200	80	65	90	72	53	85	277	7.6	3.0	4.9	4.5
9....	166	80	66	90	72	48	82	293	6.3	3.8	4.1	5.2
10....	160	80	66	90	68	48	59	395	5.2	3.4	3.0	5.6
11....	147	78	64	90	70	51	89	436	4.9	3.0	2.6	5.2
12....	130	80	62	90	64	53	169	390	4.9	3.0	2.3	4.9
13....	122	78	62	90	66	51	231	334	4.5	2.3	2.6	6.3
14....	122	70	62	90	72	72	224	231	4.5	1.8	15.0	5.2
15....	128	70	75	90	72	110	242	169	4.5	1.5	5.2	5.2
16....	128	70	85	90	74	115	273	147	4.9	1.5	4.9	4.1
17....	150	66	95	90	76	120	269	122	4.9	1.8	5.2	3.4
18....	153	64	95	90	76	122	189	98	4.9	1.8	7.6	3.4
19....	153	64	95	90	72	117	166	76	4.5	1.8	24.0	3.8
20....	147	62	95	90	61	122	245	48	3.8	2.3	9.7	3.4
21....	147	59	108	90	59	128	370	33	3.4	2.6	10	3.8
22....	150	57	110	90	55	122	458	22	4.0	3.4	12	3.4
23....	136	57	110	90	55	107	426	21	4.5	5.6	12	3.6
24....	120	57	110	90	64	95	464	18	5.2	4.9	9.0	662
25....	110	57	110	78	57	95	499	16	6.3	4.1	7.5	228
26....	100	47	110	70	59	93	493	9.7	4.9	5.6	3.4	136
27....	98	36	110	70	74	103	458	8.3	4.5	5.2	30	80
28....	100	35	110	70	80	110	420	11	4.5	4.9	29	80
29....	103	40	110	62	....	107	352	12	4.1	4.1	18	42
30....	95	50	110	65	....	107	277	36	3.4	3.4	19	34
31....	89	....	110	65	....	115	....	91	....	3.0	15	....
Total	3873	2059	2638	2690	1908	2675	7255	4490	262.2	97.5	283.9	1414.0
Mean.	125	68.6	85.1	86.8	68.1	86.3	242	145	8.74	3.15	9.16	47.1
Max...	224	....	....	....	80	128	499	436	34	5.6	30	662
Min....	....	35	....	....	55	43	59	8.3	3.4	1.5	1.9	3.4
Acre-ft.	7680	4080	5230	5340	3780	5310	14390	8910	520	193	563	2800

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Animas River at Durango for Year Ending Sept. 30, 1933.
Drainage Area, 694 Square Miles. Altitude, 6,550 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	288	257	207	....	....	164	291	410	4280	1230	370	247
2....	288	253	207	....	....	164	332	446	4840	1140	434	247
3....	281	247	210	....	....	172	375	483	3880	1030	385	235
4....	284	241	212	....	....	194	476	464	3210	1070	348	223
5....	281	244	207	....	....	169	434	541	3700	1160	344	215
6....	270	244	210	....	....	183	352	627	2880	1130	380	215
7....	260	238	204	....	....	194	340	590	2340	1610	434	207
8....	274	241	202	....	....	194	332	562	1850	1790	476	199
9....	277	244	199	....	....	215	309	569	2530	1610	502	257
10....	264	238	....	....	....	220	288	534	3610	1270	446	612
11....	274	232	....	....	....	220	274	502	4140	1190	352	777
12....	270	232	....	103	....	220	288	464	4000	1170	316	853
13....	260	229	....	....	....	226	302	446	3330	1060	313	665
14....	253	220	....	....	....	215	281	410	3100	966	302	612
15....	253	226	....	....	105	220	284	395	3180	836	298	555
16....	247	226	....	....	....	212	324	434	3030	736	295	496
17....	241	220	....	....	....	217	365	665	3100	752	270	446
18....	244	212	....	....	....	223	422	1130	2850	760	260	410
19....	257	220	....	....	....	220	458	1630	2780	657	302	496
20....	247	217	145	....	....	207	390	2190	2930	612	370	458
21....	260	212	....	....	....	215	344	2610	2540	619	309	440
22....	298	215	....	....	....	220	332	2300	2330	562	324	672
23....	298	215	....	....	....	212	316	1590	2300	508	313	576
24....	281	210	....	....	....	207	302	1340	2010	452	281	489
25....	288	207	....	....	....	197	316	1280	1780	440	264	410
26....	274	207	....	....	....	187	328	1730	1790	400	264	400
27....	274	210	....	....	164	187	348	2380	1600	395	274	385
28....	270	207	....	....	164	207	434	2710	1540	375	284	352
29....	274	207	....	....	....	244	522	3200	1540	344	281	340
30....	270	207	....	....	....	264	470	3560	1360	328	270	332
31....	257	....	....	....	....	260	....	3900	....	336	257	....
Total	8357	6778	....	....	....	6449	10629	40092	84350	26538	10318	12821
Mean.	270	226	163	103	110	208	354	1290	2810	856	333	427
Max...	298	257	....	....	....	264	522	3900	4840	1790	502	853
Min.	241	207	....	....	....	164	274	395	1360	328	257	199
Acre-ft.	16600	13400	10000	6330	6110	12800	21100	79300	167000	52600	20500	25400

Discharge of Animas River at Durango for Year Ending Sept. 30, 1934.
Drainage Area, 694 Square Miles. Altitude, 6,550 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	302	194	194	....	....	154	250	1330	782	233	192	213
2....	282	198	196	....	....	149	236	1140	740	220	188	208
3....	294	194	194	....	....	160	250	910	683	213	181	200
4....	322	200	179	....	....	160	246	756	602	208	177	194
5....	359	200	188	....	....	162	231	748	548	210	179	192
6....	448	194	188	....	....	160	223	910	518	206	170	190
7....	458	196	177	....	....	167	218	1350	474	204	172	206
8....	432	198	177	....	....	164	226	1470	422	213	177	220
9....	406	194	181	....	....	160	250	1600	412	231	179	220
10....	378	192	181	....	....	165	306	2070	427	243	177	215
11....	364	192	183	....	....	167	427	2030	432	233	181	204
12....	368	190	183	....	....	169	623	1910	427	223	190	202
13....	350	186	188	....	....	176	691	1830	427	215	185	188
14....	346	190	188	....	....	183	645	1580	396	204	186	188
15....	338	192	185	....	....	188	660	1450	359	198	210	183
16....	306	186	186	....	....	190	683	1450	342	196	218	179
17....	294	183	167	....	....	190	683	1460	330	194	218	174
18....	278	185	165	....	....	186	638	1390	306	188	223	172
19....	260	185	163	....	....	188	706	1320	298	185	226	174
20....	253	185	161	....	156	190	850	1100	286	181	231	169
21....	246	185	161	....	....	196	1060	1040	274	183	296	176
22....	239	186	161	....	....	200	1210	940	260	202	274	179
23....	223	183	161	....	....	198	1100	870	260	223	246	206
24....	226	179	161	....	164	198	1140	714	260	223	228	432
25....	223	181	161	....	160	208	1370	748	302	215	215	382
26....	218	179	161	....	157	202	1430	790	278	220	202	350
27....	215	181	161	....	158	208	1340	910	263	231	200	306
28....	215	183	161	....	160	218	1320	960	253	231	210	278
29....	210	194	161	....	....	218	1310	960	239	215	210	267
30....	194	200	161	....	....	226	1290	1090	236	205	226	256
31....	192	....	161	....	....	246	....	930	....	194	210	....
Total	9239	5685	5395	....	....	5746	21612	37756	11836	6540	6379	6723
Mean.	298	190	174	150	155	185	720	1220	394	211	206	224
Max...	458	200	196	....	....	246	1430	2070	782	243	298	432
Min.	192	179	....	....	....	149	218	714	236	181	170	169
Acre-ft.	18300	11300	10700	9220	8610	11400	42800	75000	23400	13000	12700	13300

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cascade Creek Near Tacoma for Year Ending Sept. 30, 1933.
Drainage Area, 26.8 Square Miles. Altitude, 8,853 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	8.2	7.1	6.1	6.1	6.1	6.6	20	365	80	26	12
2....	12	8.2	7.1	6.1	6.1	6.1	7.1	19	300	66	26	12
3....	12	8.2	7.1	6.1	6.1	6.1	8.8	15	306	64	26	12
4....	12	8.2	7.1	6.1	6.1	6.1	10	16	309	99	24	12
5....	12	7.1	7.1	6.1	6.1	6.1	10	18	271	120	24	12
6....	12	7.1	6.1	6.1	6.1	6.1	11	16	172	89	26	11
7....	10	7.1	6.1	6.1	6.1	6.1	12	14	154	133	36	11
8....	10	7.1	6.1	6.1	6.1	6.1	9.9	15	131	170	166	11
9....	10	7.1	6.1	6.1	6.1	6.1	9.3	15	475	122	221	35
10....	10	7.1	6.1	6.1	6.1	6.1	9.3	15	404	100	31	148
11....	10	7.1	6.1	6.1	6.1	6.1	12	14	318	84	28	70
12....	10	7.1	6.1	6.1	6.1	6.1	10	12	318	68	26	41
13....	10	7.1	6.1	6.1	6.1	6.1	9.9	12	287	66	22	41
14....	10	7.1	6.1	6.1	6.1	6.1	9.3	12	284	58	22	34
15....	10	7.1	6.1	6.1	6.1	6.1	11	14	297	53	20	34
16....	11	7.1	6.1	6.1	6.1	6.1	16	17	246	67	20	30
17....	11	7.1	6.1	6.1	6.1	6.1	20	24	239	92	21	33
18....	9.3	7.1	6.1	6.1	6.1	6.1	24	46	232	86	26	33
19....	9.3	7.1	6.1	6.1	6.1	6.1	23	107	286	62	31	31
20....	9.3	7.1	6.1	6.1	6.1	6.1	18	158	209	41	22	15
21....	8.2	7.1	6.1	6.1	6.1	6.1	15	158	156	37	22	65
22....	8.2	7.1	6.1	6.1	6.1	6.1	15	210	137	36	22	41
23....	8.2	7.1	6.1	6.1	6.1	6.1	15	72	128	36	18	32
24....	8.2	7.1	6.1	6.1	6.1	6.1	14	64	130	33	15	31
25....	8.2	7.1	6.1	6.1	6.1	6.1	13	87	119	31	15	31
26....	8.2	7.1	6.1	6.1	6.1	6.1	13	106	111	26	15	26
27....	8.2	7.1	6.1	6.1	6.1	6.1	16	157	103	26	15	19
28....	8.2	7.1	6.1	6.1	6.1	6.1	15	218	108	26	15	19
29....	8.2	7.1	6.1	6.1	....	6.1	17	213	101	26	12	19
30....	8.2	7.1	6.1	6.1	....	6.1	18	237	95	38	12	19
31....	8.2	....	6.1	6.1	....	6.1	....	238	....	36	12	....
Total	302.1	217.4	194.1	189.1	170.8	189.1	398.2	2339	6791	2071	1017	940
Mean.	9.74	7.25	6.26	6.1	6.1	6.1	13.3	75.4	226	66.8	32.8	31.3
Max...	12	8.2	7.1	6.1	6.1	6.1	24	238	475	170	221	148
Min...	8.2	7.1	6.1	6.1	6.1	6.1	6.6	12	95	26	12	11
Acre-ft.	599	431	385	375	339	375	791	4640	13400	4110	2029	1860

Discharge of Cascade Creek Near Tacoma for Year Ending Sept. 30, 1934.
Drainage Area, 26.8 Square Miles. Altitude, 8,853 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	20	15	8.2	6.1	6.1	6.1	20	99	47	13	9.6	11
2....	16	14	8.2	6.1	6.1	6.1	18	76	43	13	9.0	9.6
3....	16	13	8.2	6.1	6.1	6.1	18	53	42	12	9.0	8.6
4....	18	13	7.1	6.1	6.1	6.1	17	55	34	12	12	7.9
5....	27	13	7.1	6.1	6.1	6.1	17	68	32	12	9.0	8.0
6....	31	12	7.1	6.1	6.1	6.1	16	95	28	11	18	7.9
7....	26	12	7.1	6.1	6.1	6.1	16	129	24	13	20	8.7
8....	22	12	7.1	6.1	6.1	6.1	18	148	23	14	13	11
9....	20	12	7.1	6.1	6.1	6.1	19	183	24	15	12	11
10....	20	10	7.1	6.1	6.1	6.1	22	177	24	12	12	9.0
11....	16	10	7.1	6.1	6.1	6.1	36	172	23	12	12	7.9
12....	14	10	7.1	6.1	6.1	6.1	46	170	22	14	12	7.9
13....	14	10	7.1	6.1	6.1	6.1	47	148	22	11	12	7.9
14....	18	9.3	7.1	6.1	6.1	7.7	46	124	21	11	18	7.3
15....	18	9.3	7.1	6.1	6.1	8.8	43	112	19	10	21	7.1
16....	17	9.3	7.1	6.1	6.1	10	42	112	18	10	15	9.3
17....	17	9.3	7.1	6.1	6.1	11	39	99	17	10	27	9.4
18....	15	9.3	7.1	6.1	6.1	12	48	91	16	10	23	8.8
19....	15	9.3	6.1	6.1	6.1	14	60	82	16	9.6	18	8.2
20....	14	9.3	6.1	6.1	6.1	15	76	71	16	15	30	8.2
21....	14	9.3	6.1	6.1	6.1	12	110	69	15	15	42	8.4
22....	14	9.3	6.1	6.1	6.1	8.8	103	63	14	15	18	8.2
23....	12	9.3	6.1	6.1	6.1	8.2	95	52	15	12	15	38
24....	12	9.3	6.1	6.1	6.1	8.2	115	47	22	11	12	35
25....	12	9.3	6.1	6.1	6.1	8.8	126	47	23	17	10	15
26....	12	9.3	6.1	6.1	6.1	8.2	118	47	17	15	10	12
27....	12	9.3	6.1	6.1	6.1	10	127	47	16	12	10	11
28....	11	9.3	6.1	6.1	6.1	10	120	52	15	12	9.0	10
29....	11	8.2	6.1	6.1	....	14	116	56	14	10	10	9.0
30....	16	8.2	6.1	6.1	....	16	110	66	14	10	9.6	9.0
31....	16	....	6.1	6.1	....	18	....	56	....	9.6	....	....
Total	516	312	210	189	171	280	1804	2866	676	378	467	330
Mean.	16.6	10.4	6.8	6.1	6.1	9.03	60.1	92.5	22.5	12.2	15.1	11.0
Max...	31	15	8.2	6.1	6.1	18	127	183	47	17	42	38
Min...	11	8.2	6.1	6.1	6.1	6.1	16	47	14	9.6	9.0	7.1
Acre-ft.	1020	619	418	375	339	555	3580	5690	1340	750	928	655

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Florida River Near Durango for Year Ending Sept. 30, 1933.
Drainage Area, 96 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	32	20	....	....	....	....	26	32	680	122	47	21
2....	32	22	....	....	....	....	31	39	662	112	42	19
3....	32	20	....	....	....	....	37	40	559	112	35	16
4....	32	19	....	....	....	....	42	39	528	133	35	15
5....	30	18	....	....	....	....	37	37	502	129	26	15
6....	28	18	....	....	....	....	34	41	406	168	26	12
7....	26	18	....	....	....	....	35	40	327	346	47	10
8....	28	16	....	....	....	....	33	42	299	338	46	11
9....	30	17	....	5.5	....	....	32	43	488	276	46	27
10....	28	17	....	....	....	....	29	42	612	185	41	75
11....	27	11	....	....	....	....	27	40	612	148	41	70
12....	27	15	....	....	....	....	29	37	519	125	38	63
13....	25	16	....	....	....	13	29	38	426	110	34	54
14....	24	....	....	....	....	11	24	37	372	112	31	76
15....	25	....	....	....	....	13	28	32	249	94	31	75
16....	25	....	....	....	....	12	29	31	338	80	28	59
17....	24	....	....	....	....	12	30	38	402	86	25	48
18....	25	....	....	....	....	13	31	61	463	79	25	53
19....	24	14	....	....	....	13	33	112	581	67	36	55
20....	23	....	10	....	....	14	30	195	546	67	33	45
21....	23	....	....	....	....	12	27	279	426	62	25	51
22....	29	....	....	....	....	11	28	237	450	59	23	57
23....	28	....	....	....	....	8	28	164	497	53	22	51
24....	26	....	....	....	....	7	28	152	360	50	20	45
25....	26	....	....	....	....	7	28	164	299	47	19	41
26....	28	....	....	....	....	7	30	208	253	50	20	39
27....	25	....	....	....	....	10	28	282	208	46	22	38
28....	23	....	....	....	....	17	28	360	185	50	25	33
29....	24	....	....	....	....	22	32	488	166	45	24	29
30....	24	....	....	....	....	23	34	559	139	41	22	29
31....	20	....	....	....	....	25	....	607	....	40	21	....
Total	823	....	....	....	....	....	917	4516	12654	3432	980	1232
Mean.	26.5	15.0	10.0	5.50	7.00	11.0	30.6	146	422	111	31.6	41.1
Max...	32	....	....	....	....	....	42	607	680	346	47	76
Min...	20	....	....	....	....	....	24	31	139	40	19	10
Acre-ft.	1630	893	615	338	389	676	1820	8980	25100	6820	1940	2450

Discharge of Florida River Near Durango for Year Ending Sept. 30, 1934.
Drainage Area, 96 Square Miles. Altitude, 7,300 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	19	23	....	....	....	....	23	236	79	8	15	14
2....	18	22	....	....	....	....	24	198	62	8	12	14
3....	19	19	....	....	....	....	26	141	58	8	10	13
4....	44	20	....	....	....	....	23	112	49	9	11	11
5....	56	18	....	....	....	....	22	148	40	8	11	10
6....	95	16	....	....	....	....	20	256	37	6	8	8
7....	103	18	....	....	....	....	20	326	35	6	6	10
8....	99	18	....	....	....	....	21	259	28	9	7	14
9....	89	16	....	....	....	....	21	296	28	12	7	16
10....	79	16	....	....	....	....	28	301	22	11	7	14
11....	74	16	....	....	....	....	62	265	20	10	7	13
12....	60	16	....	....	....	....	114	262	18	9	7	12
13....	54	14	....	....	....	....	121	223	15	7	7	10
14....	58	14	....	....	....	....	126	178	11	6	10	9
15....	52	15	....	....	....	....	136	181	7	5	19	8
16....	46	15	....	....	....	23	144	181	6	5	17	7
17....	44	13	....	....	....	23	136	162	7	7	17	7
18....	38	12	....	....	....	19	119	146	6	8	17	7
19....	36	12	....	....	....	22	156	124	6	5	15	7
20....	35	12	....	....	....	24	207	103	6	5	16	7
21....	32	13	....	....	....	24	272	89	6	4	29	10
22....	28	16	....	....	....	23	262	79	6	8	26	10
23....	28	14	....	....	....	21	213	83	6	14	21	51
24....	27	10	....	....	....	22	242	65	10	11	17	72
25....	26	10	....	....	....	22	296	58	19	9	15	52
26....	25	10	....	....	....	22	332	58	15	24	16	46
27....	22	8	....	....	....	21	306	56	12	24	21	40
28....	22	8	....	....	....	22	272	56	11	24	24	36
29....	21	8	....	....	....	23	246	56	9	32	24	33
30....	19	8	....	....	....	23	217	85	8	24	20	30
31....	20	....	....	....	....	23	....	95	....	19	16	....
Total	1388	430	....	....	....	....	4207	4878	642	345	455	591
Mean.	44.8	14.3	8	6	6	19	140	157	21.4	11.1	14.7	19.7
Max...	103	23	....	....	....	....	332	326	79	32	29	72
Min...	18	8	....	....	....	....	20	56	6	4	6	7
Acre-ft.	2750	851	492	369	333	1170	8330	9650	1270	682	904	1170

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Lightner Creek Near Durango for Year Ending Sept. 30, 1933.
Drainage Area, 64 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	4	6	....	....	....	3	29	24	49	6	2	1
2....	4	6	....	....	....	3	34	28	47	6	2	1
3....	4	6	....	....	....	3	35	28	42	6	2	1
4....	4	6	....	....	....	3	39	27	40	8	2	1
5....	4	6	....	....	....	3	30	28	40	7	2	1
6....	4	5	....	....	....	3	24	30	36	8	2	1
7....	4	5	....	....	....	3	24	30	30	12	2	2
8....	5	6	....	....	....	3	23	30	26	17	2	2
9....	4	3	....	....	....	6	22	30	24	14	1	22
10....	4	3	....	....	....	6	19	28	26	11	1	6
11....	4	6	....	....	....	8	16	27	26	10	1	9
12....	4	8	....	....	....	8	16	25	26	10	1	4
13....	4	7	....	....	....	8	16	24	24	9	1	9
14....	5	4	....	....	....	10	16	22	22	9	1	7
15....	5	4	....	....	....	9	17	22	20	9	1	6
16....	5	3	....	....	....	8	20	24	19	8	1	6
17....	5	3	....	....	....	5	21	28	19	10	2	6
18....	5	3	....	....	....	5	22	41	19	10	1	6
19....	5	3	....	....	....	5	22	48	19	8	1	6
20....	5	3	....	....	....	6	21	58	20	6	1	7
21....	7	3	....	....	....	6	19	54	19	4	1	7
22....	8	3	....	....	....	7	19	48	17	3	1	7
23....	6	5	....	....	....	5	17	41	16	3	1	8
24....	6	6	....	....	....	5	16	39	15	3	1	7
25....	6	6	....	....	....	16	16	39	13	2	1	7
26....	6	6	....	....	....	26	16	44	10	15	2	7
27....	6	5	....	....	....	28	16	48	9	4	2	6
28....	6	3	....	....	....	28	18	50	9	3	1	6
29....	6	3	....	....	....	25	21	48	8	3	1	6
30....	6	3	....	....	....	24	22	48	7	2	2	6
31....	6	....	....	....	....	24	....	48	....	2	1	....
Total	158	139	....	....	....	302	646	1109	697	229	43	171
Mean...	5.10	4.63	2.00	2.00	2.00	9.74	21.5	35.8	23.2	7.39	1.39	5.70
Max....	8	8	....	....	....	28	39	58	49	17	2	22
Min....	4	3	....	....	....	3	16	22	7	2	1	1
Acre-ft.	314	276	123	123	111	599	1280	2200	1380	454	85	339

Discharge of Lightner Creek at Durango for Year Ending Sept. 30, 1934.
Drainage Area, 64 Square Miles. Altitude, 6,700 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	4	....	....	....	....	10	10	3	1	2	3
2....	7	4	....	....	....	....	10	10	3	1	1	3
3....	7	4	....	....	....	....	10	9	3	1	1	3
4....	7	4	....	....	....	....	10	10	3	1	1	3
5....	9	4	....	....	....	....	10	10	3	1	1	3
6....	12	4	....	....	....	....	10	10	2	1	1	3
7....	14	4	....	....	....	....	10	10	2	1	1	4
8....	13	4	....	....	....	....	10	10	2	1	1	2
9....	12	4	....	....	....	....	10	10	2	1	1	1
10....	14	4	....	....	....	....	11	10	2	1	1	1
11....	6	4	....	....	....	....	16	10	2	1	1	1
12....	5	4	....	....	....	....	26	9	2	1	1	1
13....	5	4	....	....	....	....	26	8	2	1	1	1
14....	5	4	....	....	....	....	26	7	2	1	1	1
15....	5	4	....	....	....	....	26	7	1	1	1	1
16....	4	4	....	....	....	....	22	7	1	1	3	1
17....	4	4	....	....	....	10	21	7	1	1	4	1
18....	4	4	....	....	....	10	19	6	1	1	4	1
19....	4	4	....	....	....	10	16	6	1	1	4	1
20....	4	4	....	....	....	10	14	5	1	1	4	1
21....	5	4	....	....	....	10	14	4	1	1	4	1
22....	5	4	....	....	....	10	14	4	1	1	2	1
23....	4	4	....	....	....	10	14	4	1	1	2	27
24....	4	4	....	....	....	10	16	4	1	1	2	7
25....	4	4	....	....	....	10	16	4	1	1	1	3
26....	4	4	....	....	....	10	16	4	1	5	1	1
27....	4	4	....	....	....	10	14	4	1	4	1	1
28....	4	4	....	....	....	10	14	3	1	3	1	1
29....	4	4	....	....	....	10	12	3	1	1	14	1
30....	4	4	....	....	....	10	10	3	1	1	8	1
31....	4	....	....	....	....	10	....	3	....	1	4	....
Total	194	120	....	....	....	....	453	211	49	40	75	80
Mean...	6.3	4.0	....	2	3	8	15.1	6.8	1.6	1.3	2.4	2.7
Max....	14	4	....	....	....	....	26	10	3	5	14	27
Min....	4	4	....	....	....	....	10	3	1	1	1	1
Acre-ft.	387	238	123	123	167	492	898	418	95	80	148	161

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Plata River at Hesperus for Year Ending Sept. 30, 1933.
Drainage Area, 37 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	10	....	....	....	....	16	38	297	26	15	6
2....	11	10	....	....	....	....	21	40	225	26	14	6
3....	11	10	....	....	....	....	30	40	159	23	12	6
4....	12	10	....	....	....	....	58	40	141	26	12	6
5....	11	10	....	....	5.2	....	50	44	150	41	15	6
6....	11	10	....	....	....	....	43	44	126	58	14	6
7....	11	10	....	....	....	....	42	43	106	87	13	6
8....	12	10	....	....	....	....	42	43	102	90	12	6
9....	13	10	....	....	....	5.1	42	43	126	76	12	16
10....	13	10	....	....	....	....	36	43	150	65	12	65
11....	13	10	....	4.7	....	....	35	39	150	54	11	45
12....	13	10	....	....	....	....	31	38	159	50	10	36
13....	12	....	....	....	....	....	30	32	122	45	10	30
14....	12	....	8	....	....	....	28	32	100	43	10	26
15....	12	....	7	....	....	....	28	30	84	37	10	24
16....	11	....	....	....	5.4	....	28	28	74	34	10	23
17....	11	7	....	....	....	....	31	38	77	32	10	18
18....	11	....	....	....	....	....	36	96	80	25	10	18
19....	11	....	....	....	....	....	38	150	114	23	10	21
20....	12	....	....	....	....	....	38	205	129	27	10	15
21....	11	....	....	....	....	....	35	195	93	43	9	22
22....	11	....	....	....	....	8	35	150	77	30	9	28
23....	10	....	....	....	....	....	33	106	126	26	9	24
24....	10	....	....	....	....	....	35	94	110	27	9	22
25....	10	....	....	....	....	....	35	103	84	27	9	21
26....	10	....	....	....	....	....	31	154	68	23	9	20
27....	10	....	....	....	....	....	31	210	41	22	9	16
28....	10	....	....	....	....	....	33	225	32	22	8	17
29....	10	....	....	....	....	....	36	276	27	21	8	17
30....	10	....	....	....	....	....	38	292	24	22	7	17
31....	10	....	....	....	....	16	....	282	....	17	7	....
Total	347	....	....	....	....	....	1045	3193	3353	1168	325	589
Mean	11.2	8.2	7.0	4.7	5.3	10.0	34.8	103	112	37.7	10.5	19.6
Max...	13	....	....	....	....	....	58	292	297	90	15	65
Min...	10	....	....	....	....	....	16	28	24	17	7	6
Acre-ft.	689	488	430	289	294	615	2070	6330	6660	2320	646	1170

Discharge of La Plata River at Hesperus for Year Ending Sept. 30, 1934.
Drainage Area, 37 Square Miles. Altitude, 8,100 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	12	....	....	....	....	9	27	87	33	8	14	9
2....	13	....	....	....	....	9	29	69	32	8	12	8
3....	14	....	....	....	....	9	29	57	29	8	11	8
4....	12	....	....	....	....	9	29	46	26	8	10	8
5....	24	....	....	....	....	9	26	41	23	8	9	8
6....	40	....	....	....	....	9	25	64	22	8	9	9
7....	37	....	....	....	....	9	25	82	19	8	8	10
8....	37	5	....	....	....	9	23	76	19	8	9	12
9....	37	....	....	....	....	9	25	82	18	8	9	11
10....	36	....	....	....	....	9	27	87	17	7	9	9
11....	30	....	....	....	....	10	69	74	16	7	8	8
12....	25	....	....	....	12	10	110	74	16	7	8	8
13....	25	....	....	....	....	10	113	69	15	8	8	8
14....	25	5	....	....	....	12	93	52	14	8	8	8
15....	24	....	....	....	....	12	82	48	12	7	9	7
16....	21	....	....	....	....	14	79	42	10	8	9	6
17....	20	....	....	....	....	15	76	42	10	8	10	6
18....	19	....	....	....	....	16	64	48	10	8	9	6
19....	19	....	....	....	....	19	54	46	10	8	9	6
20....	19	....	....	....	....	22	57	39	10	8	11	5
21....	15	....	....	....	....	23	64	37	10	8	11	5
22....	14	....	....	....	....	25	66	39	11	9	11	5
23....	13	5	....	....	....	26	71	37	11	10	10	14
24....	13	....	....	....	....	26	84	33	11	10	9	26
25....	13	....	....	....	....	26	96	30	11	11	8	14
26....	12	....	....	....	....	26	107	33	11	16	10	14
27....	12	....	....	....	....	26	104	35	10	26	14	14
28....	12	....	....	....	....	26	98	41	9	27	14	13
29....	12	....	....	....	....	26	79	41	9	22	12	10
30....	12	....	....	....	....	29	84	46	9	18	11	9
31....	12	....	....	....	....	29	....	37	....	15	10	....
Total	629	....	....	....	....	518	1915	1638	467	327	310	287
Mean	20.3	5	5	5	10	16.7	63.8	52.8	15.6	10.5	10.0	9.6
Max...	40	....	....	....	....	29	113	87	33	27	14	26
Min...	12	....	....	....	....	9	23	30	9	7	8	5
Acre-ft.	1250	298	307	307	555	1030	3800	3250	928	646	615	571

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of La Plata River at Colorado-New Mexico State Line for Year Ending Sept. 30, 1933.
Drainage Area, 331 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	14	.....	.....	.....	30	25	53	79	0	0	0
2....	9	13	.....	.....	.....	39	22	63	62	0	0	0
3....	10	12	.....	.....	.....	38	20	69	12	0	0	0
4....	9	12	.....	.....	.....	23	22	67	5	2	0	0
5....	8	12	.....	.....	.....	17	38	65	6	6	0	0
6....	8	12	.....	.....	.....	22	42	72	5	31	0	0
7....	9	12	.....	.....	.....	32	41	67	4	80	3	0
8....	10	12	.....	.....	.....	29	26	62	4	194	1	0
9....	16	12	.....	.....	.....	31	20	61	4	71	0	10
10....	10	11	.....	.....	.....	30	18	56	5	46	0	55
11....	9	12	.....	11	.....	29	13	38	10	40	0	13
12....	9	12	.....	.....	.....	32	10	13	79	52	0	5
13....	9	14	.....	.....	.....	29	10	7	78	75	0	7
14....	9	12	14	.....	.....	26	10	6	58	46	3	9
15....	9	12	12	.....	.....	26	10	4	75	35	1	6
16....	9	12	.....	.....	13	22	10	4	89	31	0	5
17....	10	12	.....	.....	.....	23	11	2	55	37	0	4
18....	10	10	.....	.....	.....	21	10	0	77	12	0	8
19....	10	.....	.....	.....	.....	20	14	8	79	6	1	5
20....	11	.....	.....	.....	.....	18	14	10	89	7	0	5
21....	26	.....	.....	.....	.....	17	11	39	83	3	0	7
22....	23	.....	.....	.....	.....	18	9	82	112	3	0	7
23....	15	.....	.....	.....	.....	18	9	87	100	2	0	6
24....	14	.....	.....	.....	.....	18	8	80	48	10	1	6
25....	15	.....	.....	.....	.....	17	7	82	15	8	0	6
26....	14	.....	.....	.....	.....	20	7	94	9	2	0	6
27....	15	.....	.....	.....	.....	20	7	88	5	14	0	7
28....	15	.....	.....	.....	.....	28	15	102	.....	5	0	7
29....	13	.....	.....	.....	.....	42	23	116	.....	2	0	7
30....	12	.....	.....	.....	.....	36	30	110	.....	2	0	7
31....	13	.....	.....	.....	.....	31	.....	110	.....	0	0	.....
Total	369	.....	.....	.....	.....	802	512	1717	1247	822	10	198
Mean.	11.9	11.5	13.0	11.0	13.0	25.9	17.1	55.4	41.6	26.5	0.32	6.60
Max...	26	.....	.....	.....	.....	42	42	116	112	194	3	55
Min...	8	.....	.....	.....	.....	17	7	0	.....	0	0	0
Acre-ft.	732	684	799	676	722	1590	1020	3410	2480	1630	20	393

Discharge of La Plata River at Colorado-New Mexico State Line for Year Ending Sept. 30, 1934.
Drainage Area, 331 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	6	14	15	.....	.....	8	1	48	17	0	0	0
2....	5	14	13	.....	.....	8	1	50	13	1	0	0
3....	13	14	.....	.....	.....	9	3	40	12	1	0	0
4....	10	11	.....	.....	.....	9	2	28	12	1	0	0
5....	45	12	.....	.....	.....	9	2	20	9	1	0	0
6....	31	13	.....	.....	.....	9	1	20	9	1	0	22
7....	14	14	.....	.....	.....	8	1	35	9	1	0	7
8....	12	13	.....	.....	.....	7	1	37	7	1	0	3
9....	14	13	.....	.....	.....	6	0	41	6	1	0	1
10....	19	14	.....	.....	.....	4	1	48	5	1	0	1
11....	31	15	.....	.....	.....	4	0	42	3	0	23	1
12....	16	13	.....	.....	.....	4	0	35	3	0	0	1
13....	14	14	.....	.....	.....	4	4	34	2	0	0	2
14....	13	14	.....	.....	.....	4	0	28	1	0	0	2
15....	13	16	.....	.....	.....	4	0	24	1	0	11	3
16....	13	16	.....	.....	.....	4	0	19	2	0	0	1
17....	13	16	.....	.....	.....	3	0	14	1	0	0	1
18....	13	16	.....	.....	.....	3	0	13	1	0	0	1
19....	14	14	19	.....	8	3	0	15	2	0	0	1
20....	12	14	.....	.....	.....	3	0	12	1	1	0	1
21....	11	13	.....	.....	.....	4	0	9	0	0	14	1
22....	11	10	.....	.....	.....	4	6	9	0	0	5	0
23....	11	10	.....	20	.....	4	19	12	1	0	1	63
24....	12	9	.....	.....	.....	3	40	12	1	0	0	8
25....	12	10	.....	.....	10	3	40	10	1	44	0	2
26....	12	11	.....	.....	9	3	50	9	1	9	336	1
27....	12	11	.....	.....	9	2	53	8	0	51	15	1
28....	12	11	.....	.....	9	2	50	6	0	29	3	0
29....	12	12	.....	.....	.....	1	36	8	0	3	2	0
30....	14	16	.....	.....	.....	1	43	17	0	1	0	0
31....	14	.....	.....	.....	.....	1	.....	28	.....	1	0	.....
Total	454	392	.....	.....	.....	141	354	731	120	148	410	124
Mean.	14.6	13.1	17	18	9	4.5	11.8	23.6	4.0	4.8	13.2	4.1
Max...	45	16	.....	.....	.....	9	53	50	17	51	336	63
Min...	5	9	.....	.....	.....	1	0	6	0	0	0	0
Acre-ft.	898	780	1050	1110	500	277	702	1450	238	295	812	244

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Cherry Creek at Mouth Near Red Mesa for Year Ending Sept. 30, 1933.
Drainage Area, 66 Square Miles. Altitude, 6,490 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	1	2				2	13	10	2	2	1	0
2....	1	2				2	12	15	2	3	1	0
3....	1	2				2	12	20	1	5	1	0
4....	1	2				2	13	20	1	7	1	0
5....	1	1				2	14	18	1	12	1	0
6....	1	1				2	9	19	1	12	1	0
7....	1	1				2	8	19	1	35	1	0
8....	1					2	8	16	1	57	1	0
9....	2					2	8	15	1	17	1	2
10....	2					2	8	14	1	11	1	8
11....	2					2	5	11	1	9	1	3
12....	2					2	5	5	1	8	1	1
13....	2					2	5	1	1	12	1	1
14....	1					2	5	1	1	8	1	1
15....	1					2	4	1	1	6	1	1
16....	1					3	5	1	4	6	1	1
17....	1					3	5	1	3	6	0	1
18....	1	3				3	5	2	3	7	0	1
19....	1					2	6	4	3	6	0	1
20....	1					2	6	10	5	3	0	1
21....	2					3	5	24	6	3	0	1
22....	2					3	5	28	11	3	0	4
23....	2					3	6	25	14	3	0	5
24....	2					3	5	21	14	6	0	5
25....	2					3	4	17	6	4	0	5
26....	2					4	4	10	2	3	0	5
27....	2					6	3	7	1	3	0	5
28....	2					15	6	8	1	1	0	5
29....	2					26	8	9	2	1	0	5
30....	2					16	9	9	2	1	0	5
31....	2					15		10		1	0	
Total	47					140	211	371	94	261	16	67
Mean.	1.52	2.00	1.00	1.00	1.00	4.52	7.03	12.0	3.13	8.42	0.52	2.23
Max...	2					26	14	28	14	57	1	8
Min...	1					2	3	1	1	1	0	0
Acre-ft.	94	119	62	62	56	278	418	738	186	518	32	133

Discharge of Cherry Creek at Mouth Near Red Mesa for Year Ending Sept. 30, 1934.
Drainage Area, 66 Square Miles. Altitude, 6,490 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	3.7	2.6	3.2				1	0.3	0.2	0	0	0
2....	3.5	3.2	2.2				1	0.3	0.1	0	0	0
3....	3.9	3.2	2.6				1	0.3	0	0	0	0
4....	4.3	3.2	2.2				0.9	0.4	0	0	0	0
5....	4.3	3.2	2.8				0.9	0.4	0	0	0	0
6....	4.3	3.2	2.4				0.8	0.3	0	0	0	0
7....	4.3	3.2	1.7				0.8	0.3	0	0	0	0
8....	4.3	2.8					0.8	0.3	0	0	0	0
9....	5.6	2.6					0.8	0.3	0	0	0	0
10....	7.0	3.2					0.6	0.2	0	0	0	0
11....	5.9	3.5					0.4	0.2	0	0	0	0
12....	5.1	3.5					0.4	0.2	0	0	0	0
13....	4.8	3.2					0.4	0.2	0	0	0	0
14....	5.1	3.5					0.8	0.2	0	0	0	0
15....	4.6	3.5					0.5	0.2	0	0	0	0
16....	4.6	3.2					0.4	0.2	0	0	0	0
17....	4.3	3.2				1.6	0.4	0.2	0	0	0	0
18....	4.3	3.0				1.2	0.4	0.2	0	0	0	0
19....	3.2	2.8				1.0	0.3	0.2	0	0	0	0
20....	2.2	2.8				1.0	0.3	0.2	0	0	0	0
21....	2.6	3.0				1.2	0.3	0.2	0	0	0	0
22....	2.6	3.2				1.2	0.3	0.1	0	0	0	0
23....	2.8	2.4				1.4	0.3	0.1	0	0	0	0
24....	3.5	2.2				1.4	0.3	0	0	0	0	0
25....	3.7	2.2				1.6	0.3	0	0	0	0	0
26....	3.5	2.0				1.6	0.3	0	0	0	48	0
27....	3.0	2.0				1.6	0.3	0	0	0	0.3	0
28....	2.8	2.1				1.4	0.3	0	0	0	0	0
29....	2.8	2.0				1.1	0.3	0	0	0	0	0
30....	2.6	3.0				1.1	0.3	0	0	0	0	0
31....	2.6					1.0		0.2		0	0	
Total	121.8	86.7					15.9	5.7	0.3	0	48.3	0
Mean.	3.93	2.89				1.10	0.53	0.18	0.01	0	1.56	0
Max...	7	3.5					1.0	0.4	0.2	0	48	0
Min...	2.2	2.0					0.3	0	0	0	0	0
Acre-ft.	242	172				68	32	11	1	0	96	0

Unless otherwise noted, all discharges are in cubic feet per second.

Discharge of Mancos River Near Mancos for Year Ending Sept. 30, 1933.
Drainage Area, 73 Square Miles. Altitude, 7,140 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	8	3	....	....	....	....	15	38	365	58	14	3
2....	7	3	....	....	....	....	21	44	313	53	18	3
3....	10	3	....	....	....	....	28	49	176	49	17	3
4....	8	3	....	....	....	....	31	49	141	46	14	2
5....	9	3	....	....	....	....	31	63	153	47	17	3
6....	8	3	....	....	....	....	27	65	119	48	18	3
7....	6	3	....	....	....	....	26	55	100	119	18	2
8....	7	3	....	....	....	....	24	57	92	123	18	2
9....	7	3	....	....	....	....	24	55	127	90	17	6
10....	7	4	....	....	....	....	19	55	166	70	14	53
11....	6	3	....	....	....	....	20	58	190	58	14	34
12....	6	3	....	....	....	....	16	50	210	61	12	26
13....	4	4	....	....	....	....	15	46	190	55	10	20
14....	4	3	....	....	....	10	14	41	158	49	7	16
15....	4	3	....	....	....	....	14	40	141	44	6	14
16....	4	3	....	....	....	....	14	52	153	40	6	10
17....	3	3	....	....	....	....	17	87	136	44	6	6
18....	4	3	....	....	....	....	22	141	145	41	6	9
19....	4	3	....	....	....	....	27	203	166	37	11	12
20....	4	3	....	....	....	....	33	287	166	33	10	9
21....	6	3	....	....	....	8	31	308	186	32	8	30
22....	12	3	....	....	....	14	27	193	190	28	8	37
23....	8	3	4.2	....	....	12	26	109	203	26	8	23
24....	7	3	....	3.8	....	10	26	98	163	27	6	18
25....	5	3	....	....	3.7	10	27	102	132	38	6	14
26....	4	3	....	....	....	10	28	160	111	32	6	12
27....	4	3	....	....	....	....	33	214	97	27	7	11
28....	3	3	....	....	....	....	41	252	83	24	6	9
29....	4	3	....	....	....	....	43	272	74	22	4	8
30....	3	3	....	....	....	....	40	292	64	20	4	8
31....	3	....	....	....	....	15	....	341	....	16	4	....
Total	179	92	....	....	....	....	760	3876	4710	1457	320	406
Mean.	5.77	3.07	4.2	3.8	3.7	10.0	25.3	125	157	47.0	10.3	13.5
Max..	12	....	....	....	....	....	41	341	365	123	18	53
Min..	3	....	....	....	....	....	14	38	64	16	4	2
Acre-ft.	355	183	258	234	206	615	1510	7690	9340	2890	633	803

Discharge of Mancos River Near Mancos for Year Ending Sept. 30, 1934.
Drainage Area, 73 Square Miles. Altitude, 7,140 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	10	5	2	....	....	....	14	86	29	4	6	7
2....	10	5	....	....	....	....	15	79	24	4	5	5
3....	11	4	....	....	....	....	13	73	22	4	5	4
4....	12	5	....	....	....	....	9	60	18	4	6	4
5....	26	5	....	....	....	....	9	61	18	3	5	4
6....	26	4	....	....	....	....	7	79	18	2	4	4
7....	22	5	....	....	....	....	7	92	16	3	4	8
8....	21	6	....	....	....	....	8	90	15	4	5	8
9....	20	5	....	....	....	....	12	94	15	4	7	7
10....	19	4	....	....	....	....	29	100	14	4	6	6
11....	20	5	....	....	....	....	60	99	13	4	5	5
12....	18	5	....	....	....	....	80	96	11	3	4	5
13....	16	4	....	....	....	....	92	89	10	2	3	4
14....	19	4	....	....	....	....	82	79	8	2	4	3
15....	18	5	....	....	....	....	78	65	7	2	8	3
16....	14	4	....	....	....	....	76	60	6	2	6	2
17....	12	4	....	....	....	....	74	58	6	2	5	2
18....	10	4	....	....	....	14	66	55	7	4	6	3
19....	10	4	....	....	....	14	64	49	8	4	7	3
20....	10	3	....	....	....	15	73	46	9	4	7	2
21....	12	4	....	....	....	15	78	38	8	6	6	2
22....	12	6	....	....	....	14	79	36	8	18	5	2
23....	10	4	....	....	....	15	89	33	8	8	4	21
24....	10	2	....	....	....	15	100	29	13	5	2	35
25....	11	2	....	....	....	15	99	24	15	5	3	20
26....	10	2	....	....	....	15	96	29	9	14	12	16
27....	8	2	....	....	....	14	90	29	7	14	24	13
28....	6	3	....	....	....	15	91	27	6	17	17	11
29....	6	3	....	....	....	16	81	26	5	12	13	10
30....	4	3	....	....	....	12	82	39	5	8	9	9
31....	4	....	....	....	....	16	....	32	....	8	8	....
Total	417	120	....	....	....	....	1753	1852	358	178	211	228
Mean.	13.5	4.0	2	2	3	13.0	58.4	59.7	11.9	5.7	6.8	7.6
Max..	26	6	....	....	....	....	100	100	29	18	24	35
Min..	4	2	....	....	....	....	7	24	5	2	2	2
Acre-ft.	830	238	123	123	167	799	3480	3670	708	350	418	452

Unless otherwise noted, all discharges are in cubic feet per second.

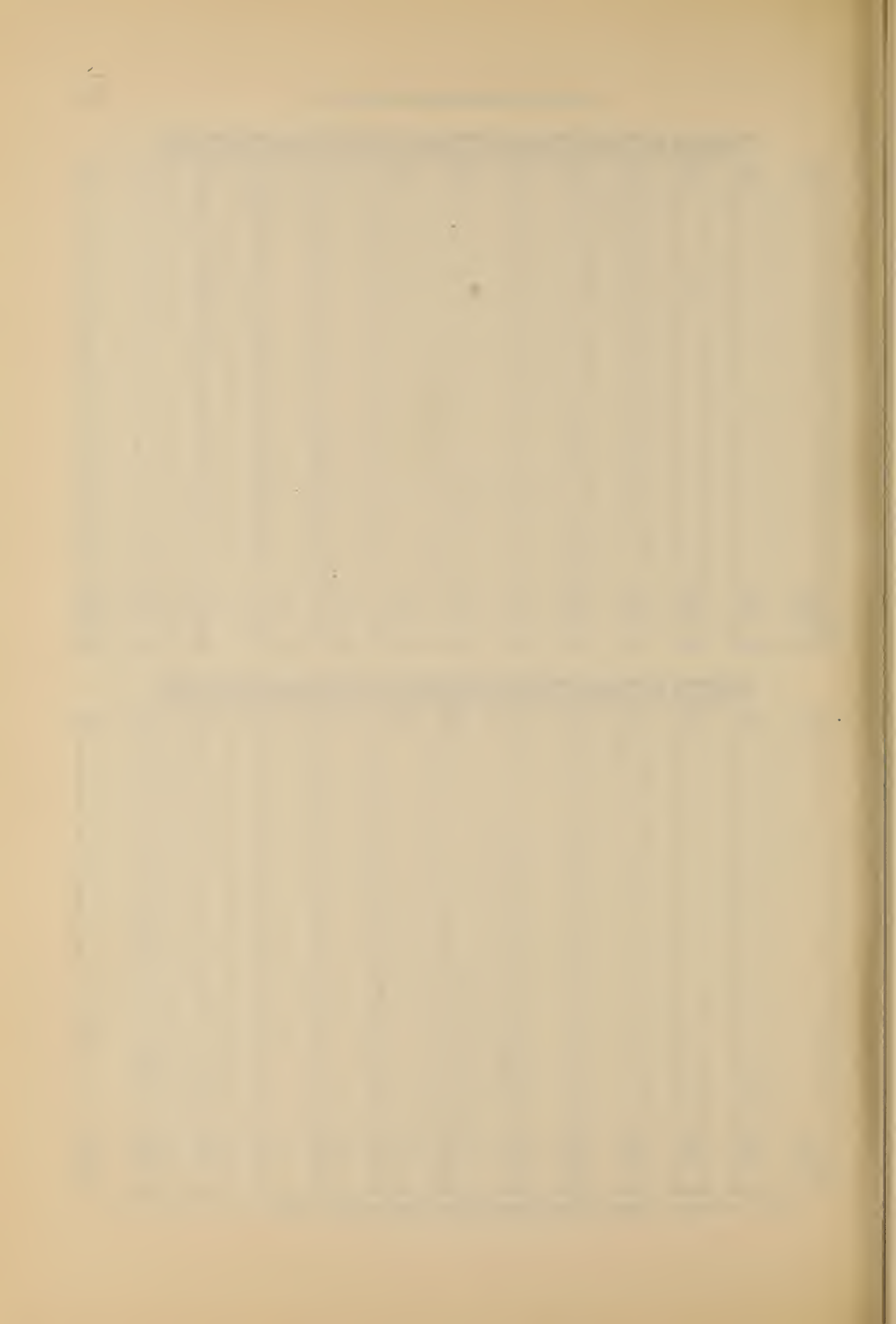
Discharge of Mancos River Near Towaoc for Year Ending Sept. 30, 1933.
Drainage Area, 558 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	15	12	12	....	....	....	22	46	204	31	4	0
2....	15	12	12	....	....	....	22	47	230	23	3	0
3....	15	12	12	....	....	....	24	54	179	20	2	0
4....	12	12	10	....	....	....	29	56	118	14	1	0
5....	15	12	10	....	....	....	29	50	88	21	1	0
6....	12	12	10	....	....	....	30	59	75	28	1	0
7....	12	12	10	....	....	....	27	59	66	38	2	0
8....	12	12	12	....	....	....	27	61	66	118	2	0
9....	33	12	10	....	....	....	27	61	57	288	1	4
10....	19	12	12	....	....	....	24	54	50	90	3	8
11....	18	12	....	....	....	....	21	56	57	78	2	15
12....	18	10	....	....	....	....	22	66	66	148	0	12
13....	15	10	....	....	....	....	22	66	66	80	0	10
14....	12	10	....	....	....	27	19	57	75	68	0	12
15....	12	12	....	....	....	24	19	50	57	57	0	10
16....	12	12	....	....	....	23	19	50	57	43	0	8
17....	12	12	....	....	....	23	20	42	57	32	0	8
18....	12	12	....	....	....	26	28	75	57	31	0	19
19....	12	12	....	....	....	26	28	157	66	31	0	8
20....	12	12	....	....	....	22	33	288	66	23	0	10
21....	12	12	....	....	....	18	33	320	66	22	0	16
22....	57	12	....	....	....	18	30	259	75	16	0	39
23....	29	10	9	....	....	17	31	144	118	18	0	30
24....	22	10	....	9	19	17	31	88	100	12	0	19
25....	18	10	....	....	....	17	36	75	88	21	0	16
26....	18	10	....	....	....	17	32	75	75	17	0	10
27....	15	12	....	....	....	17	32	100	75	11	0	10
28....	15	12	....	....	....	16	25	135	68	7	0	10
29....	15	12	....	....	....	19	30	179	51	4	0	10
30....	12	12	....	....	....	22	39	204	40	4	0	8
31....	12	....	....	....	....	22	....	204	....	18	0	....
Total	520	346	....	....	....	....	811	3238	2513	1412	22	292
Mean.	16.8	11.5	10.0	9.00	15.0	20.0	27.0	104	83.8	45.5	0.71	9.73
Max..	57	12	....	....	....	....	39	320	230	288	4	39
Min..	12	10	....	....	....	....	19	43	40	4	0	0
Acre-ft.	1030	684	615	553	833	1230	1610	6400	4990	2800	44	579

Discharge of Mancos River Near Towaoc for Year Ending Sept. 30, 1934.
Drainage Area, 558 Square Miles. Altitude, 6,000 Feet Above Sea Level.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1....	7	11	20	....	....	20	10	7	0	0	1	1
2....	6	11	11	....	....	15	9	7	0	0	0	1
3....	6	11	7	....	....	15	14	11	0	0	0	0
4....	10	11	11	....	....	18	16	20	0	0	0	0
5....	27	11	7	....	....	12	18	14	0	0	0	0
6....	79	14	7	....	....	14	19	11	0	0	0	0
7....	24	11	7	....	....	14	19	10	0	0	0	6
8....	18	11	6	....	12	13	16	17	0	0	0	6
9....	14	11	9	....	12	11	19	14	0	0	0	1
10....	14	11	7	....	13	11	19	11	0	0	0	0
11....	19	9	....	....	14	12	23	11	0	0	0	0
12....	19	9	....	....	12	12	38	9	0	0	0	16
13....	16	9	....	....	12	13	52	6	0	0	13	1
14....	16	9	....	....	12	14	59	5	0	0	14	0
15....	16	11	....	....	11	14	52	4	0	0	16	0
16....	16	14	....	....	11	15	45	2	0	0	25	0
17....	16	11	....	....	11	16	45	1	0	0	16	0
18....	14	9	....	....	12	14	39	0	0	0	11	0
19....	14	9	....	....	11	13	33	0	0	25	9	0
20....	14	9	....	....	11	14	24	0	0	3	11	0
21....	14	9	....	....	12	16	20	0	0	96	7	0
22....	14	9	....	....	14	15	20	0	0	11	1	0
23....	14	11	....	....	13	14	22	0	0	1	0	204
24....	14	11	....	....	18	13	24	0	0	....	0	60
25....	14	11	....	....	30	13	29	0	0	....	0	11
26....	11	11	....	....	20	12	26	0	4	....	526	3
27....	11	9	....	....	20	12	18	0	0	172	30	1
28....	11	9	....	....	20	12	14	0	0	93	6	0
29....	11	25	....	....	....	11	12	0	2	7	6	0
30....	11	40	....	....	....	10	9	0	1	3	6	0
31....	11	....	....	....	....	10	....	0	....	3	1	....
Total	501	357	....	....	....	418	763	160	7	414	699	311
Mean.	16.2	11.9	8.00	10.0	14.0	13.5	25.4	5.16	0.23	13.4	22.5	10.4
Max..	79	40	....	....	....	20	59	20	4	172	526	204
Min..	6	9	....	....	....	10	9	0	....	....	....	0
Acre-ft.	996	708	492	615	778	830	1510	317	14	824	1380	619

Unless otherwise noted, all discharges are in cubic feet per second.



CHAPTER XIII

ANNUAL REPORTS
OF
IRRIGATION DIVISION
ENGINEERS
FOR
1933-1934

ANNUAL REPORT IRRIGATION DIVISION NO. 1, 1933

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

Following is a brief report of the administration of Irrigation Division No. 1 for the season of 1933:

The lack of precipitation and below normal runoff in the streams during the years 1931 and 1932 were reflected in the spring of 1933. Practically all available storage for irrigation was exhausted in the fall of 1932; this with a subnormal snowfall in the South Platte Drainage indicated another season of drouth in this division.

Owing to lack of moisture demands for direct irrigation were heavy during the fall of 1932, and there was no water available for storage until November 20th. On this date orders were sent to all commissioners in the Division to store in order of priority.

On January 7th the first appropriation of the Riverside Reservoir in District No. 1 was satisfied, and the water diverted to the Empire Reservoir, with priority of date May 18, 1905.

Owing to the mild winter practically no difficulty due to ice was encountered.

On January 27th the first appropriation of Barr Lake in District No. 2 was filled, and permission was given to store in Cheesman Lake; however, there was no water available for storage at that time.

On March the 9th the first use of water for direct irrigation was reported in District No. 2, under the Burlington and Evans No. 2 Canals. On March 13th orders were issued to stop all storage in Districts above District No. 2 to supply shortage and demands for direct irrigation in District No. 2, and on April 7th all storage was ordered stopped in District 2-3-4-5 and 6 to supply demands for direct irrigation in District No. 1.

March 27th shortage in District No. 2 was reported for priority of date May 5, 1866.

On April 10th a heavy snow in Denver and vicinity was of material benefit; only a light fall, however, was reported in Districts 1 and 64.

Heavy snows throughout the division and in the upper reaches of the Platte on April 20th and 21st relieved a situation that appeared critical, and resulted in the storage of water in all districts. About 30 inches of wet snow was reported at Cheesman Lake and 12 inches at Antero Reservoir.

Precipitation during the latter part of April and May, and high water in the streams, continued storage in all districts until June 3rd, when storage was ordered stopped to supply shortage for direct irrigation in District No. 1.

On July 7th a cloudburst in the vicinity of Starbuck resulted in a flood in Bear Creek, which did considerable damage to low lands and diversion works on the stream.

District No. 2 reported a shortage to supply Fulton Ditch with priority of date May 1, 1865, on September 8th, this being the low water period for the season.

Heavy rains of cloudburst proportions resulted in floods in Cherry Creek, Bear Creek, Clear Creek and the South Platte River on September 10th, causing considerable damage near Littleton and in the South Platte Valley below Denver. The Highline Canal in District No. 8 was damaged in several places, and the O'Brian Canal inlet to Barr Lake was damaged at Sand Creek so that no water could be diverted for several weeks. The peak flow of the Platte River through Denver was estimated to be 22,000 s. f. This was of short duration and the discharge dropped to 900 s. f. on September 11th.

As a result of the flood storage was permitted wherever possible and continued in Lake Cheesman until September 28th.

Storage was permitted in Barr Lake on November 16th and in the Riverside Reservoir in District No. 1 on November 23rd.

The erratic nature of a runoff such as occurred during the season presents many difficult problems of administration and results in almost daily change of orders to the water commissioners.

In general, the water supply was sufficient and resulted in crops of nearly average yield and quality.

Yours truly,

C. C. HEZMALHALCH,
Deputy State Engineer.

IRRIGATION DIVISION NO. 1

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP
REPORTS FOR THE IRRIGATION SEASON OF 1933.
CROPS IRRIGATED IN ACRES

District No.	Total No. of Acres That Can Be Irrigated	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens	Potatoes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	178,000	33,239	26,275	51,234	123	70	2,301
2	314,704	45,389	11,067	82,550	506	7,397	7,461
3	388,540	63,915	5,290	53,743	2,164	3,538	30,235
4	173,760	53,400	120	57,100	2,075	1,090	7,300
5	104,573	22,658	2,317	43,250	539	294	250
6	193,035	32,892	67,890	58,263	590	386	440
7	118,446	22,410	1,504	38,226	3,472	13,690	147
8	119,059	6,831	1,326	6,807	1,033	1,541	745
9	17,939	6,379	2,414	5,327	98	420	15
23				No Report.			
47				No Report.			
48	4,609	.....	4,243	.....	.....	.....	.....
64	190,859	38,389	30,456	40,363	186	364	2,924
65	3,184	556	145	75	21	38	38
Totals..	1,806,708	326,058	153,047	436,938	10,807	28,828	51,856

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP
REPORTS FOR THE IRRIGATION SEASON OF 1933.
CROPS IRRIGATED IN ACRES

Dist. No.	Sugar Beets	Beans	Peas	Cabbage	Lettuce	Other Crops	Total Irrigated
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	24,650	6,122	....	248	....	25,766	170,078
2	39,810	13,590	2,120	2,278	....	6,234	218,482
3	57,260	3,433	243	961	....	42,758	263,540
4	16,160	.....	....	....	....	7,600	144,845
5	10,100	400	850	160	....	2,854	83,672
6	8,073	765	486	227	....	1,105	171,117
7	2,027	320	247	997	290	415	83,745
8	818	500	....	33	....	2,325	21,959
9	357	11	65	109	....	2,497	17,692
23				No Report.			
47				No Report.			
48 .....	.....	.....	....	....	....	.....	4,243
64	34,541	808	....	183	....	22,867	171,081
65	5	.....	....	17	....	567	1,462
Totals..	193,801	25,949	4,011	5,213	290	114,988	1,351,786

ANNUAL REPORT DIVISION NO. 1, 1934

November 30, 1934.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

Herewith report of administration in Division No. 1 for 1934.

Storage of water in the fall of 1933, as a result of heavy rains, resulted in the carrying over of considerable water for use this year. Water stored in Cheesman Lake for use in Denver during September, 1933, proved of immeasurable value during this year.

Amount of water in storage at the start of the irrigation season was below normal in all districts except in Districts 1 and 64.

Lack of snowfall in the higher elevations of the Platte River drainage, and subnormal precipitation during the growing season, resulted in one of the driest years of record.

Runoff in the streams varied from 75% of normal in Clear Creek to 43% of normal in the Cache la Poudre River.

Runoff of the South Platte River at South Platte was 50% of normal.

Storage was started in Barr Lake, District No. 2, on November 16, 1933, and in Riverside Reservoir, in District No. 1, on November 23, 1933.

Demands for storage in District No. 1 were released on February 18th, and storage permitted on 1909 priority in Barr Lake and Milton Lake in District No. 2.

The first demand for direct irrigation was made in District No. 8 on March 15th, for the Highline Canal, with priority of date January 18, 1879.

As a result of this demand an order was sent to the Commissioner of District 23 to stop all storage and limit diversions for direct irrigation to priorities senior to January 18, 1879.

On April 18th, the Water Commissioner of District No. 2 made demand for water for direct irrigation to supply 1871 priority, and on same date the Commissioner in District No. 1 made demand to supply 1888 priority.

During May considerable difficulty was experienced in the administration between Districts 2 and 7, due to fluctuations in stream

flow. In this connection it is often necessary to pass water from Clear Creek to supply senior priorities on the Platte River.

For the first time calls were made for strict administration in North Park, comprising Water District No. 47; as a result a number of measuring flumes were installed. In years of normal runoff little difficulty is experienced in the administration of this district.

On July 16, Brighton Ditch, in District No. 2, with priority of date December 1, 1866, was short, and this shortage continued until July 23rd. The distribution in District No. 2 fluctuated between the priority of the Brighton Ditch, 1863, to the Fulton's Ditch priority of 1865, until August 9th. On this date floods of small duration in Bear and Cherry Creeks resulted in a peak flow in the Platte River at Denver of 1,650 c. f. s. for a short time. This water supplied priorities in District No. 2 up to the priority of the Evans No. 2, of date October 5, 1871, until August 11th, when there was a shortage to supply the Fulton Ditch priority of date May 1, 1865.

The critical condition prevailed during the balance of the year.

Direct irrigation continued until December 1st, when storage was started in Jackson Lake, in District No. 1, and in Barr Lake and Lower Latham Reservoir, in District No. 2.

In several tributaries of the Platte River, including the Big Thompson River and Boulder Creek, there was not sufficient water during the late summer and fall to supply No. 1 priorities.

Practically all available storage water was exhausted, and unless excess precipitation occurs, the most serious situation in the history of irrigation confronts the South Platte Valley.

The co-operation and excellent service of the various water commissioners deserve special commendation, as it was largely due to their efforts that serious difficulties were avoided.

Yours truly,

C. C. HEZMALHALCH,
Deputy State Engineer.

IRRIGATION DIVISION NO. 1

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP
REPORTS FOR THE IRRIGATION SEASON OF 1934.
CROPS IRRIGATED IN ACRES

District No.	Total No. of Acres That Can Be Irrigated	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens	Potatoes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	184,000	35,252	27,105	51,748	129	360	2,310
2	197,018	35,830	9,612	72,942	411	8,510	7,945
3	388,000	63,565	5,395	54,750	2,164	3,785	29,000
4	153,390	54,245	130	60,745	2,405	1,280	3,085
5	105,300	24,394	6,287	39,227	745	310	523
6	172,835	33,530	66,740	57,938	638	528	430
7	114,856	20,910	1,514	40,826	3,222	12,740	157
8	112,988	5,172	987	4,413	823	1,571	605
9	18,377	6,462	1,548	5,948	104	275	.....
23				No Report.			
47				No Report.			
48	4,609	.....	4,243	.....	.....	.....	.....
64	194,820	42,171	30,797	57,019	186	667	3,115
65	3,184	483	213	201	27	98	42
Totals..	1,649,377	322,014	154,571	445,757	10,854	30,124	47,212

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP
REPORTS FOR THE IRRIGATION SEASON OF 1934.
CROPS IRRIGATED IN ACRES

Dist. No.	Sugar Beets	Beans	Peas	Cabbage	Lettuce	Other Crops	Total Irrigated
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	23,471	7,203	....	172	....	26,446	174,196
2	34,642	16,691	925	2,423	....	5,675	195,606
3	52,132	3,158	373	1,204	....	48,009	263,535
4	13,285	2,435	1,430	1,000	....	230	140,270
5	8,868	592	1,119	140	....	5,067	87,272
6	8,320	738	547	243	....	1,903	171,555
7	3,121	321	247	987	325	390	84,760
8	844	400	....	25	....	250	15,090
9	258	92	....	138	....	2,827	17,652
23				No Report.			
47				No Report.			
48 .....	.....	.....	.....	.....	.....	.....	4,243
64	31,452	1,360	....	215	....	8,093	175,075
65 .....	.....	.....	.....	35	....	283	1,382
Totals..	176,393	32,990	4,641	6,582	325	99,173	1,330,636

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 2 FOR 1933

November 30, 1933.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

I herewith submit my report for the year 1933. The dry years of 1932 and 1931 left their effects on 1933. While the precipitation was a little above the average, the ground was so dry that it required an extra amount of moisture to furnish a surplus for plant growth. The dryness of the climate continued until the 4th of May, last, when a slow drizzle rain occurred and continued for four days. This broke the dry spell and put the ground in excellent condition for starting crops and also provided some storage water for all reservoirs.

The snowfall in the mountains amounted to 2.08 of water content on April 1st. The average for the past twenty years for that date is 4.18 inches. However, snows in April and May provided enough additional moisture so that the runoff from melting snows, which was supplemented by rains, was of material proportions during the month of June. The snowfall was fairly uniform over the entire range. It often happens that one part of the Irrigation Division may have an excess and another part a shortage, but the average amount will be near normal.

The winter of 1932 and 1933 was a mild and open one with the result that there were but few days that storage of water was permitted. There were about three times during the winter that storage of irrigation water was allowed for short periods. The only plains reservoirs that we were able to supply with their first decrees were Lake Henry and Holbrook Lake No. 1. These two reservoirs have early decrees. A few of the mountain reservoirs captured a fair amount of water in the short time storage was allowed.

Crops, on the whole, were an average in this Division. Sugar beets were above the average in yield, sugar content and purity. Melons were good as well as onions. Corn showed excellent prospects, but the ears did not develop as well as appearance indicated. The yield fell short. Alfalfa yielded three good cuttings. All canals had good crops with the possible exception of one or two of the most junior in right that depend largely on reservoir water.

The supply of irrigation water and rains during the growing months of June, July and August was nearly up to normal.

This water in storage on May 1st amounted to 40,558 acre-feet. Of this total, 1,630 acre-feet was for domestic purposes and 6,577 was for power and manufacturing purposes and 5,900 acre-feet was unavailable and could not be drawn out of the reservoirs. This left 26,451 acre-feet available for irrigation in the entire Irrigation Division. Some storage water was captured during the irrigation season and run out on the land later. This water does not show in the total for November. On November 1st there was a total of 58,943 acre-feet in storage. Of this amount, 5,368 acre-feet was for domestic purposes and 9,181 acre-feet was for power and manufacturing purposes and 5,900 acre-feet is unavailable. This leaves 48,494 acre-feet in storage available for irrigation. On November 1, 1932, there was a total in storage of 35,132 acre-feet. The average amount in storage on May 1st is 198,395 acre-feet and on November first is 170,795 acre-feet. There was little reservoir water to assist in starting crops. The months of April and May produced rainfall above the average in amount which started crops off well and produced enough moisture to carry them through to the June runoff. Western Kansas and Eastern Colorado were in a drouth area during the early part of the year, which interfered with crop growth in the first part of the season. Later the drouth was broken and that area received good rains.

Below I give a table showing the rainfall by months at Pueblo as compared with the average at the Pueblo station beginning with the month of November, 1932.

	Nov. 1932	Dec. 1932	Jan. 1933	Feb. 1933	Mar. 1933	April 1933	May 1933	June 1933	July 1933	Aug. 1933	Sept. 1933	Oct. 1933
Pueblo . . .	0.30	0.59	0	0.36	0.43	2.60	2.55	2.66	1.98	1.57	0.41	0
Average ..	0.36	0.50	0.31	0.47	0.59	1.31	1.50	1.36	1.94	1.86	0.75	0.66

The total precipitation for the past irrigation season amounted to 13.45 inches. The yearly average amounts to 11.67 inches. The precipitation was 1.78 inches above the average and it came at a time that did the most good to crops.

Some hail storms occurred but were not general in area covered. One small section near the mouth of the Huerfano River was visited by two hail storms which occurred about a month apart. A strip of country just east of Manzanola was visited by a hail.

The total runoff of the Arkansas River at the Pueblo station amounted to 346,170 acre-feet. The normal runoff is 540,372 acre-feet. The runoff for 1933 was 64 per cent of the average amount for the past thirty-eight years.

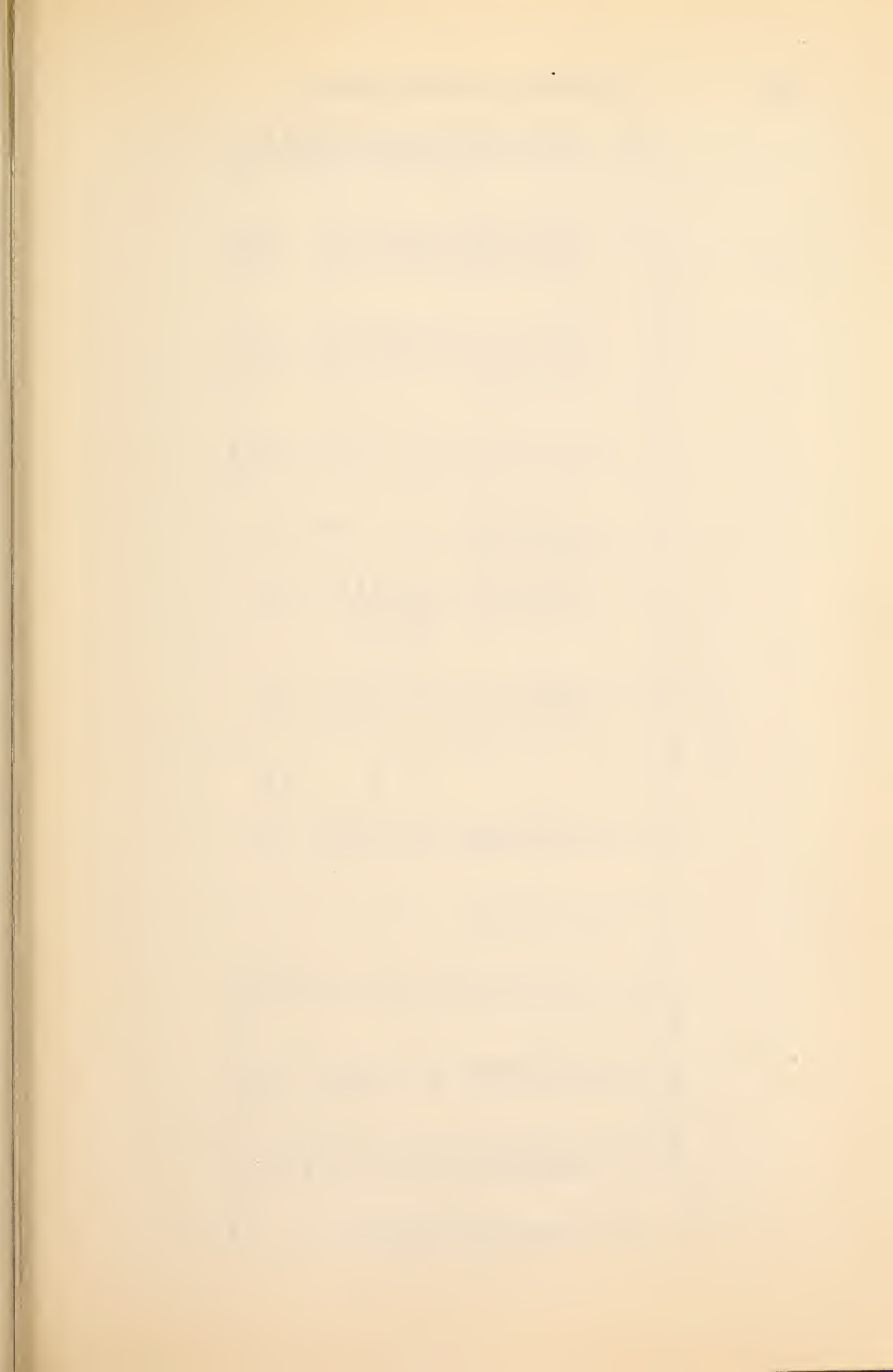
Transmountain water again played an important part in our irrigated agriculture. There was a total of 9,960 acre-feet of water brought over from the Western Slope. This water is all carefully accounted for. Self-registers are kept on every transmountain diversion and the charts and rating flumes are checked every two weeks by a State Hydrographer. The water is as carefully accounted for as money in the bank. A total of 25,081 acre-feet of reservoir and transmountain water was passed down the Arkansas River to various points of diversion near Pueblo and below. For the use of the river as carrier a toll of 2,864 acre-feet was exacted.

The one outstanding new irrigation development for the year was the starting of a tunnel 3.8 miles in length under Independence Pass by the Twin Lakes Reservoir and Canal Company. This tunnel will bring the waters of the Roaring Fork River into the Arkansas River watershed above the Twin Lakes reservoir. The estimated delivery of the water varies from 25,000 to 30,000 acre-feet per year.

Respectfully submitted,

C. W. BEACH,

Division Engineer of Irrigation Division No. 2.



DIVISION NO. 2

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR SEASON OF 1933

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Number of Water District	Amount Appro- priated in Cubic Feet per Second	Capacity of Ditches in Second Feet	Length of Main Ditches in Miles	Length of Laterals in Miles	First Day Water Was Diverted from Natural Stream	Last Day Water Was Diverted from Natural Stream	Maximum Number of Days Water Was Diverted from Natural Stream	Maximum Number of Days Carried from Reservoir	Amount of Water Carried from Res- ervoir in Acre-Feet	Average Daily Amount of Water Diverted from Natural Stream	Number of Acre- Feet Diverted During Season from Nat. Stream	Number of Acres That Can Be Irrigated
10....	1,013.42	.....	133.50	....	Jan. 6	Nov. 3	232	183	4,315	232.09	61,345	25,165
11....	951.65	985.04	280.0	....	Feb. 20	Nov. 1	240	37	18,290	635.3	334,456	29,168
12....	1,216.35	.....	.....	....	Nov. 1, 1932	Oct. 31, 1933	352	83	4,218	346.56	137,008	36,278
13....	500.22	.....	870.38	....	April 1	Oct. 1	190	...	3,315	353.81	43,799	22,203
14....	1,967.45	2,283	246	....	Nov. 1, 1932	Oct. 31, 1933	358	...	.....	906.3	96,446	113,234
15....	219.5	283.9	90	....	March 1	Oct. 28	230	...	463	112.16	26,024	12,932
16....	1,788.56	3,917.25	656.49	....	March 17	Sept. 30	171	52	4,688	387.11	51,315.94	212,470
17....	5,907.78	8,704	511	....	March 1	Oct. 31	239	82	43,714	1,425.5	346,098	235,498
18....	402.91	.....	56.50	....	.....	.....	...	...	.....	.....	.....	8,831
19....	1,666.14	2,831.43	373.68	....	Nov. 1, 1932	Oct. 31	297	365	12,663	.....	.....	62,928
67....	1,794.83	1,881	223.25	....	Jan. 1, 1933	Oct. 31	273	46	5,920	552.75	177,025.7	72,605
Totals	17,429.81	20,885.62	3,440.80	.....					97,586	4,451.58	1,273,497	831,312

Number of Water District	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
				Orchards	Market Gardens	Potatoes	Sugar Beets	Head Lettuce Cabbage and Cauliflower	Beans and Peas	Other Crops	Total Irrigated	Cost of Superintendence	Cost of Repairs	Cost of Improvements
10....	2,743	3,338	3,617	69	460	247	835	....	35	1,289	18,751	\$ 4,380.00	\$10,885.00	\$ 2,030.00
11....	5,418	10,804	5,565	86	264	651	....	332	1,764	399	25,283	.....	2,025.00	445.00
12....	5,735	1,997	6,681	3,863	505	32	....	....	262	2,082	21,320	.....	.....	.....
13....	2,306	16,947	1,442	30	13	136	....	75	386	868	22,203	.....	.....	.....
14....	28,270.5	3,760.5	28,573.5	683.5	2,515.75	1,600	15,462	4,103.75	2,150.5	14,516	108,069	7,560.00	15,722.28	250.00
15....	2,476	1,689.5	4,179	17.5	1	1	90	....	38.5	49	7,581	.....	.....	.....
16....	17,987	5,746	11,986	94	72	....	1,023	18.5	2,068.25	2,487	41,482	2,422.00	2,197.79	350.00
17....	56,981	4,463	55,137	429	923	125	19,884	253	3,196	21,349	163,140	16,836.00	12,741.00	6,876.00
18....	2,539	432	1,440	6	....	....	....	....	15	....	4,432	.....	.....	.....
19....	3,133	4,877	5,896	86	118	....	1,184	....	2,359	2,559	20,120	.....	7,133.00	3,365.00
67....	21,470.7	1,057	23,163.6	130	321.2	....	4,987.6	....	322	13,325.1	63,992	22,431.32	10,522.77	1,829.83
Totals	149,060	55,111	147,680.1	5,494	5,192.35	2,732	43,465.6	4,787.25	12,596.25	58,923.1	496,373	\$43,623.00	\$61,247.84	\$17,770.83

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 2 FOR 1934

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

I herewith submit to you my annual report for the year 1934. The winter season of 1933 and 1934 was very mild and open. The Arkansas River did not freeze over at any point between Pueblo and the Kansas line. The older canals used water all winter long. There was no storage of winter water. The result was that the older canals had placed a large amount of moisture in the soil. The growing season started off in good shape. The precipitation in December and February was above the average. Beginning with March the drouth started and the result was one of the worst crop years known. During the growing months of April, May, June, July and August the precipitation was only 46.3 per cent of the average. In the month of June only 0.14 inches of moisture fell at the Pueblo station. The average for this month is 1.36 inches. Temperatures were high during the growing season.

The snowfall in the mountains amounted to 2.49 inches of water content. The average is 4.10 inches of water. The runoff of snow water was very small. It was not accompanied by rains and was hardly noticeable.

The flow of the Arkansas River during the irrigation season was around ten to twenty-five per cent of the average. During the fall months it amounted to between twenty to twenty-five per cent of the average.

The cities of Colorado Springs, Walsenburg, Rocky Ford, Ordway and Wiley suffered from a shortage of water.

Crops under some of the junior canals were a failure. Some canals did not receive any water for irrigation. Under the senior canals crops were much below the average. The cantaloupe crop was good in quality but low in yield. This was true of the sugar beets. The sugar beet factories had from thirty to forty days' campaign. Other crops were similar, good in quality but low in yield.

The records of the U. S. Weather Bureau do not disclose a drouth of as great proportions during the past seventy years which is the life of the Bureau. The drouth covered a large territory. It reached from east of the Mississippi river to the Pacific coast.

Below is a tabulation showing the precipitation by months at the Pueblo station. The table also shows the average precipitation.

	Nov. 1933	Dec. 1933	Jan. 1934	Feb. 1934	Mar. 1934	April 1934	May 1934	June 1934	July 1934	Aug. 1934	Sept. 1934	Oct. 1934
	0.16	1.09	....	1.23	0.38	0.60	0.47	0.14	1.85	0.40	0.34	0.01
Average	0.36	0.50	0.31	0.47	0.59	1.31	1.50	1.36	1.94	1.86	0.75	0.66

Total for the year, 6.67 inches.

Average per annum, 11.67 inches.

This table will give some idea of the shortage in moisture suffered during the season.

The lack of storage water in the winter season of 1933 and 1934 and the low stage of the water in the reservoirs in the fall of 1933, no water to carry over as has been the custom for many years, accounts for the small amount of water in the reservoirs in the spring of 1934.

On May 1st the average amount of water in the storage reservoirs has been 198,000 acre-feet. The amount in storage on May 1st, 1934, was 62,974 acre-feet. Of this amount 10,374 acre-feet was for domestic and manufacturing purposes and some 6,000 acre-feet were unavailable and could not be gotten out of the reservoirs. This left 46,600 acre-feet for irrigation purposes. On November 1st there was 23,945 acre-feet in the storage reservoirs. Of this amount, 12,046 acre-feet were for manufacturing and domestic purposes and 5,500 acre-feet were unavailable. This leaves only 6,400 acre-feet for irrigation purposes.

We have five transmountain diversions operating that need to be looked after and the amounts of water computed each week, if the water is to be properly distributed to reservoirs or direct flow ditches. There are two more transmountain ditches in process of construction which will be operating in 1935. These are the Twin Lakes tunnel under Independence Pass and a ditch over Marshall Pass.

The five transmountain ditches brought over a total of 8,088.87 acre-feet of water in 1934, for the Arkansas River watershed.

There was a charge of 2,491 acre-feet made for carrying reservoir and transmountain water in 1934. This charge became a part of the flow of the Arkansas River and was delivered to ditches in order of their respective priorities. The total runoff of the Arkansas River at the Pueblo station for 1934 was 164,710 acre-feet, which is 31.3 per cent of the average flow for forty years. The average flow is 526,125 acre-feet per annum.

We have been accumulating records for several years that are becoming more valuable as time goes by. Our records are consulted by many people representing a variety of interests. Farmers requesting loans on their property are the most numerous applicants for information concerning the amounts of water run by their ditches during the past few years. This kind of information is of especial value to the party making the loan.

Yours respectfully,

C. W. BEACH.

Division Engineer of Irrigation Division No. 2

DIVISION NO. 2

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL CROP REPORTS FOR SEASON 1934

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Number of Water District	Amount Appro- priated in Cubic Feet per Second	Capacity of Ditches in Second Feet	Length of Main Ditches in Miles	Length of Laterals in Miles	First Day Water Was Diverted from Natural Stream	Last Day Water Was Diverted from Natural Stream	Maximum Number of Days Water Was Diverted from Natural Stream	Maximum Number of Days Water Was Carried from Reservoir	Amount of Water Carried from Res- ervoir in Acre-Feet	Average Daily Amount of Water Diverted from Natural Stream	Number of Acre- Feet Diverted During Season From Nat. Stream	Number of Acres That Can Be Irrigated
10....	1,013.42	.....	133.5	....	Jan. 2	Nov. 3	210	230	5,566	148	30,081	19,188
11....	889.14	918.89	315.75	....	March 1	Nov. 30	245	60	....	563	19,181	30,097
12....	1,109.7	1,260	80.6	....	Nov. 1, 1933	Oct. 31	365	192	4,295	315.98	358,023	30,993
13....	495.19	.....	371	....	April 1	Oct. 1	180	...	....	135.1	13,199	12,868
14....	1,936.85	2,030	249.75	....	Nov. 1, 1933	Oct. 31	360	13	500	763.90	118,997	116,443
15....	220.4	270.6	87.75	....	Feb. 19	Oct. 19	234	...	....	10,100.39	14,981.32	12,930
16....	1,771.13	4,613.86	640.34	....	March 20	Sept. 25	174	10	60	243.68	1,857,030	114,130
17....	5,907.78	8,704	511	....	March 1	Oct. 31	240	65	3,122	1,408.98	150,546	201,423
18....	350.1	.....	55.5	....	.....	.....	...	...	....	.....	.....	8,611
19....	1,854.38	3,791.66	375.83	....	Nov. 1, 1933	Oct. 31, 1934	315	18	2,118	.....	.....	69,623
67....	2,999	1,891	219	....	Jan. 1	Oct. 31	216	65	6,424	385.78	101,229	91,205
Totals	18,547.09	23,480.01	3,040.02	.....					22,085	14,063.91	2,663,267.32	707,511

Number of Water District	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)			
	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens	Potatoes and Cantaloupes	Sugar Beets	Head Lettuce Cabbage and Cauliflower	Beans and Peas Onions	Other Crops	Total Irrigated	Cost of Superintendence	Cost of Repairs	Cost of Improvements
10	2,710	942	12	64	...	769	222	272	3,612	11,132	\$13,420.00	\$ 1,194.75	\$ 1,180.00
11	9,524	6,204	115	244	...	...	141	1,471	798	33,465	.....	.....	868.00
12	4,887	4,852	3,776	583	14	12	143	343	1,620	17,783	.....	.....	.....
13	2,220	8,716	972	5	45	....	166	100	534	12,868	.....	62.00	.....
14	18,568	13,126.5	352	2,739	...	9,186	1,136.5	1,313	4,264	53,891	4,000.00	6,200.60	5,291.18
15	2,653	1,377	2,963	3	...	110	...	22	122	7,358	.....	.....	3,154.00
16	16,500	5,222	10,142	109.4	...	1,016	8	853.2	1,856	35,929.4	5,922.00	10,700.00	.....
17	54,528	4,729	56,953	453	125	15,105	16	2,815	18,126	153,628	19,085.00	8,854.00	831.00
18	2,829	665	1,485	6	...	.....	...	5	...	4,677	.....	.....	.....
19	3,116	90	4,952	77	...	1,711	...	2,394	2,145	17,234	5,892.00	4,968.00	1,712.00
67	21,964.8	3,225	10,839	80	33	3,986	...	227	27,039	68,408	.....	.....	.....
Totals	132,397.48	41,470	113,430.5	5,360.2	5,061.2	218	31,895	1,832.5	9,815.2	60,116	\$48,319.00	\$31,978.95	\$13,036.18

TABULATION SHOWING AMOUNT OF WATER IN STORAGE OF THE MAJOR RESERVOIRS IN IRRIGATION DIVISION NO. 2—DECEMBER 1, 1933, TO NOVEMBER 1, 1934

No. District	Name of Reservoir	EXPRESSED IN ACRE-FEET											
		Dec. 1, 1933	Jan. 1, 1934	Feb. 1, 1934	Mar. 1, 1934	April 1, 1934	May 1, 1934	June 1, 1934	July 1, 1934	Aug. 1, 1934	Sept. 1, 1934	Oct. 1, 1934	Nov. 1, 1934
10	Fountain Valley No. 2.....	1,496	2,571	3,894	4,645	4,987	4,898	3,644	2,404	1,034	708	532	532
10	Fountain Valley No. 3.....	0	46	104	57	254	169	145	57	57	46	46	36
10	Spring Run.....	95	152	192	207	207	192	164	53	31	5	5	5
10	Calahan	0	23	23	23	521	521	269	23	9	2	2	0
10	Cheyenne Mountain	0	95	95	124	226	226	124	69	28	28	28	0
10	Monument (State)	144	196	324	447	363	363	289	0	0	0	0	0
11	Sugar Loaf.....	5,586	5,586	5,586	5,639	5,638	5,140	6,306	6,324	4,311	4,150	4,067	4,025
11	Twin Lakes.....	7,391	6,721	6,389	6,171	5,690	6,553	10,260	7,307	7,056	7,056	5,839	5,474
11	Clear Creek.....	2,138	2,138	2,265	2,138	2,264	2,264	792	210	169	169	1,113	160
12	Skagway	2,392	1,688	958	405	279	327	243	150	299	313	302	504
12	Mt. Pisgah.....	243	243	243	243	243	94	0	0	0	0	0	0
12	Brush Hollow	1,499	2,478	2,766	3,142	3,306	3,025	1,548	394	0	102	109	0
12	City Colorado Springs.....	4,260	4,016	3,964	3,684	3,437	3,500	4,195	3,609	2,764	2,074	1,427	952
13	Deweese-Dye	916	916	948	948	948	892	506	91	201	65	0	0
14	Teller	676	676	658	687	759	749	426	419	434	0	527	0
14	Lake Henry.....	1,984	1,780	1,661	1,849	1,759	1,633	1,026	0	0	0	0	0
14	Lake Meredith.....	0	0	0	0	0	0	0	0	0	0	0	0
15	Beckwith	198	64	...	425	510	510	284	63	0	0	0	0
15	Minnequa	1,261	1,277	1,293	1,308	1,241	1,157	1,073	1,191	1,257	1,202	1,278	1,271
15	C. F. & I. Co. No. 2.....	2,701	2,725	2,738	2,688	2,689	2,666	2,560	2,625	2,505	2,651	2,703	2,664
15	C. F. & I. Co. No. 3.....	2,455	2,494	2,486	2,475	2,340	2,280	1,802	2,053	2,689	2,508	2,410	2,490
16	Coler	2,860	2,434	2,860	3,853	3,853	3,471	3,310	2,860	2,860	2,716	2,573	1,538

16	Cucharas	7,868	6,290	6,104	6,080	6,290	6,290	1,880	800	800	0	0	0
16	Bradford	0	0	0	0	0	0	0	0	0	0	0	0
16	Huerfano Valley	1,205	1,205	1,190	1,175	1,466	1,128	432	260	0	0	0	0
16	Crane-Holmes No. 1	0	0	0	0	0	0	0	0	0	0	0	0
16	Lindsley Lake	0	0	0	0	0	0	0	0	0	0	0	0
16	Holita	0	0	0	0	37	37	27	8	0	0	0	0
16	Valdez	0	0	0	0	0	0	0	0	0	0	0	0
16	Dotson	1,751	1,700	1,650	1,600	1,160	847	753	376	376	350	350	325
17	Dye	2,743	2,349	2,683	2,120	1,688	1,630	0	0	0	0	0	0
17	Holbrook	0	0	408	1,280	1,315	1,207	202	0	0	0	0	0
17	Horse Creek	0	0	0	0	0	0	0	0	0	0	0	0
17	Adobe	0	0	0	0	0	0	0	0	0	0	0	0
18	Seven Lakes .....	...	...	...	...	...	...	...	...	...	...	...	0
19	Model	2,736	3,136	3,136	3,400	3,069	2,736	0	0	0	0	0	0
19	Hermosa	120	120	110	...	60	...	...	0	0	15	15	0
19	North Lake	798	750	692	692	708	777	798	776	708	730	730	664
67	Nee No Shee	0	0	0	0	0	0	0	0	0	0	0	0
67	Nee Gronda	...	...	...	...	...	...	...	...	...	...	...	...
67	Nee Sopah	...	...	...	...	...	...	...	...	...	...	...	...
67	Nee Skak or Queen	0	0	0	0	0	0	0	0	0	0	0	0
67	Two Buttes	10,174	7,815	7,315	7,445	7,365	7,163	5,876	4,224	4,405	4,405	4,405	3,606
67	Thurston	0	0	559	808	652	529	96	139	0	0	0	0

*One outlet for three reservoirs.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 3 FOR 1933

Alamosa, Colorado, November 25, 1933.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

In compliance with the provisions of the statutes I hereby submit my report showing the conditions of my Division as to crop production and marketing, also a tabulated statement of Water Commissioners' Ditch and Reservoir reports; also of crops produced under these systems.

Yours truly,

WALTER D. CARROLL,
Irrigation Division Engineer, Div. No. 3.

WATER COMMISSIONER'S RESERVOIR REPORT

District No.	Capacity in Acre-Feet in All Reservoirs	Acre-Feet in Reservoirs May 1, 1933	Acre-Feet in Reservoirs Nov. 1, 1933	First Day Water Used from Reservoirs	Last Day Water Used from Reservoirs	No. Days Water Used from Reservoirs	No. Acre-Feet of Water Carried from Reservoir
20.....	132,581	35,426	8,261	April 1	August 20	93	43,086
21.....	31,752	1,281	1,281	May 22	Nov. 10	105	5,400
22.....	9,710	80	384	April 1	Oct. 22	200	4,400
24.....	110,747	11,048	10,375	May 10	Sept. 17	180	32,972
35.....	25,483	9,041	8,779	May 1	Nov. 1	180	11,200
Total	309,973	56,875	29,080				97,058

Storage in Reservoirs

The amount of water in storage in all reservoirs in the Division for 1933 was on May 1, 56,875; November 1, 29,080; as against 1932, May 1, 41,488; November 1, 42,211. Most of the reservoirs were dry this fall, while last season a nice supply was carried over.

AMOUNT OF WATER IN STORAGE (ACRE-FEET) IN RESERVOIRS ON
THE FIRST OF EACH MONTH FROM DECEMBER 1, 1932,
TO NOVEMBER 1, 1933

		Rio Grande	Santa Maria	Continental	Sanchez	Terrace
December	1, 1932.....	13,828	3,526	6,120	9,916	Dry
January	1, 1933.....	15,362	4,406	6,490	9,740	Dry
February	1, 1933.....	16,791	5,347	6,490	9,540	Dry
March	1, 1933.....	17,625	6,106	6,508	9,207	349
April	1, 1933.....	18,785	7,091	6,526	9,602	585
May	1, 1933.....	15,289	7,014	6,453	10,173	585
June	1, 1933.....	12,652	8,574	5,395	18,887	1,988
July	1, 1933.....	20,321	12,047	4,350	17,891	6,366
August	1, 1933.....	3,934	5,715	3,017	11,686	4,226
September	1, 1933.....	Dry	2,685	2,382	7,833	Dry
October	1, 1933.....	Dry	3,163	1,648	8,264	Dry
November	1, 1933.....	Dry	3,163	1,648	8,435	Dry
		Mountain				
		La Jara	Home	Smith	Cove Lake	Salazar
December	1, 1932.....	1,281	4,569	3,839	No Report	No Report
January	1, 1933.....	1,281	4,569	3,362	No Report	No Report
February	1, 1933.....	1,586	4,569	4,191	No Report	No Report
March	1, 1933.....	1,586	4,569	4,191	No Report	No Report
April	1, 1933.....	1,921	5,562	4,869	No Report	No Report
May	1, 1933.....	2,311	4,121	5,336	80	No Report
June	1, 1933.....	2,921	8,675	5,336	No Report	No Report
July	1, 1933.....	2,921	13,225	5,336	No Report	No Report
August	1, 1933.....	2,405	8,685	3,210	No Report	No Report
September	1, 1933.....	1,006	6,037	2,450	No Report	No Report
October	1, 1933.....	1,006	5,005	2,400	No Report	No Report
November	1, 1933.....	1,006	4,927	2,400	384	No Report
		Archuleta				
		Ranch	Road Canon	Poage	Lost Lakes	Shaw
April	1, 1933.....	No Report	No Report	No Report	No Report	No Report
May	1, 1933.....	97	2,625	260	771	638
June	1, 1933.....	No Report	No Report	No Report	No Report	No Report
July	1, 1933.....	No Report	No Report	No Report	No Report	No Report
August	1, 1933.....	No Report	No Report	No Report	No Report	No Report
September	1, 1933.....	No Report	No Report	No Report	No Report	No Report
October	1, 1933.....	No Report	No Report	No Report	No Report	No Report
November	1, 1933.....	Dry	2,383	Dry	Dry	425
		Bristol				
		Head No. 1	Bristol	Bristol	San Luis	Regan
April	1, 1933.....	No Report	No Report	No Report	No Report	No Report
May	1, 1933.....	12	8	424	400	400
June	1, 1933.....	No Report	No Report	No Report	No Report	No Report
July	1, 1933.....	No Report	No Report	No Report	No Report	No Report
August	1, 1933.....	No Report	No Report	No Report	No Report	No Report
September	1, 1933.....	No Report	No Report	No Report	No Report	No Report
October	1, 1933.....	No Report	No Report	No Report	No Report	No Report
November	1, 1933.....	Dry	Dry	Dry	Dry	Dry
		Hunters				
		Humphries				
April	1, 1933.....	No Report	No Report	No Report	No Report	No Report
May	1, 1933.....	No Report	No Report	No Report	48	842
June	1, 1933.....	No Report	No Report	No Report	No Report	No Report
July	1, 1933.....	No Report	No Report	No Report	No Report	No Report
August	1, 1933.....	No Report	No Report	No Report	No Report	No Report
September	1, 1933.....	No Report	No Report	No Report	No Report	No Report
October	1, 1933.....	No Report	No Report	No Report	No Report	No Report
November	1, 1933.....	No Report	No Report	No Report	Dry	642
		Eastdale				
		No. 1	No. 2	Trout Lake	Grace	
April	1, 1933.....	No Report	No Report	No Report	No Report	No Report
May	1, 1933.....	507	368	198	605	605
June	1, 1933.....	No Report	No Report	No Report	No Report	No Report
July	1, 1933.....	No Report	No Report	No Report	No Report	No Report
August	1, 1933.....	No Report	No Report	No Report	No Report	No Report
September	1, 1933.....	No Report	No Report	No Report	No Report	No Report
October	1, 1933.....	No Report	No Report	No Report	No Report	No Report
November	1, 1933.....	774	Dry	Dry	605	605

WATER COMMISSIONER'S DITCH REPORT

District No.	No. of Priorities Reported	First Day Water Was Diverted from Stream for Irrigation	Last Day Water Was Diverted from Stream for Irrigation	Maximum No. of Days Water Was Diverted from Stream	Acre-Feet Used by Ditches and Canals from Natural Streams	Total No. of Acres That Can Be Irrigated
20	419	March 20	November 24	244	502,288	498,503
21	76	March 15	August 19	196	123,381	70,495
22	167	March 15	October 20	215	268,340	150,029
24	97	April 1	November 1	214	34,307	20,588
25	96	April 2	November 1	210	53,577	60,816
26	115	March 15	November 10	235	29,080	96,883
27	77	March 29	November 5	227	11,711	7,732
					1,086,786	957,083

WATER COMMISSIONER'S CROP REPORT FOR 1933

District No.	Alfalfa	Natural Grass	Cereals	Pasture	Market Gardens	Potatoes
20	17,444	11,300	17,152	60,517	1,157	11,408
21	13,322	13,162	6,667	....	1,524	4,943
22	10,320	27,160	24,040	....	87	7,188
24	4,540	3,450	8,927	....	3,054	1,154
25	1,785	24,011	603	....	....	128
26	3,297	19,095	550	1,995	196	....
27	790	1,829	149	2,381	....	237
35	2,748	19,973	1,850	2,168	1,161	281
Totals	54,246	119,980	59,938	67,061	7,179	25,339

District No.	Sweet Clover	Beans	Peas	Lettuce	Other Crops	Total Irrigated
20	9,183	....	6,268	154	5,759	140,342
21	....	171	3,037	49	1,772	44,647
22	....	1,234	7,844	124	8,834	86,831
24	....	734	8,829	....	1,712	32,400
25	....	....	30	....	16	26,573
26	....	....	....	....	243	25,376
27	....	3	311	....	374	6,074
35	....	87	1,195	....	257	29,720
Totals	9,183	2,229	27,514	327	18,967	391,963

District No.	Superintendent	Repairs	Improvements
20	\$ 2,790	\$ 4,396	\$ 375
21	....	....	....
22	3,390	1,525	1,180
24	3,116	1,079	60
25	....	2,135	....
26	....	2,545	30
27	....	603	40
35	....	....	6,968
Totals	\$ 9,296	\$12,283	\$ 8,653

Direct Irrigation from Natural Streams

While the snow situation in 1932-33 was not promising, the general results for the season were very satisfactory owing to the rainfall which came about the time ditches were shut off. In several districts the rains were of flood proportions, particularly in District 24, where enormous damage was done to ditches and head-gates. In 1932 there was 1,223,321 acre-feet used by ditches from natural streams, while 1933 shows only 1,086,786.

There was a very material decrease in acreage planted this season, which is probably due to inability of farmers to obtain seed and the fear of a shortage of water.

Cost of Administration

Cost of administration for Division No. 3 for 1933 was \$11,427.

This includes salaries of all water commissioners and their deputies.

There was 391,963 acres irrigated at a cost of \$0.029 per acre.

Dist. 20	Water Commissioner's Salary....	\$ 1,872	Deputy....	\$380
Dist. 21	Water Commissioner's Salary....	1,560	Deputy....	165
Dist. 22	Water Commissioner's Salary....	1,084	Deputy....	190
Dist. 24	Water Commissioner's Salary....	1,470		
Dist. 25	Water Commissioner's Salary....	1,248		
Dist. 26	Water Commissioner's Salary....	1,344		
Dist. 27	Water Commissioner's Salary....	1,368		
Dist. 35	Water Commissioner's Salary....	746		
Totals		\$10,692		\$735

The following is the report of crops in the Division :

Potatoes

The potato crop in the Division, while below normal as to yield and acreage, was 50% better than last season.

There was some indication of the Psyllid Nymph. Generally the crop was satisfactory both as to yield and price.

Farmers received 90c to \$1.00 and the shipments by railway amounted to.....	3,042 Cars
While the trucks hauled out.....	250 Cars
Total	3,292 Cars

It is estimated that there is still in storage in the valley 5,000 carloads.

Sugar Beets

The sugar beet crop in this Division showed a material increase over previous years, amounting to 350 cars or 14,000 tons. The crop netted good money to the farmers, yielding on an average 15 tons per acre and carrying a sugar content of 18%.

The crop is coming more in favor among the farmers, as it is a sure money crop.

Market Garden Peas

This crop was very satisfactory this season both as to yield and price. They brought on an average 2½¢ per pound, and as the yield is usually very heavy in pounds per acre, a nice income was realized.

Lettuce

This crop as usual proved a disappointment to the growers, as weather conditions were unfavorable and many fields went to seed before they could be marketed.

The price of 65¢ per crate would hardly pay for expenses of raising the crop.

Cauliflower

This crop always produces well and the quality is excellent but the price of 35¢ per crate to the grower showed a loss, and many fields were not harvested.

Cabbage

The cabbage crop in the valley was the best ever produced and the price of \$20 per ton to the grower netted a fine profit.

Spinach, String Beans and Brocoli

A considerable acreage in these vegetables was planted and they produced well and brought in nice money to the growers.

Vegetable shipments out of the valley for 1933 amounted to	1,883 Cars
Including Potatoes.....	3,292 Cars
Total	5,175 Cars

Cereals

Wheat, oats and barley crops were all good. The yield and acreage were considerably more than in recent years and prices are more favorable.

Field Peas

This crop is always good in the valley and with more than an average crop and prices favorable, the growers are making good money.

Native Hay and Alfalfa

The hay crop in the Division was exceptionally good.

Alfalfa produced two good cuttings and a good pasture crop while the native hay was exceptionally fine. The weather conditions were favorable and the crop was put in stacks without rain.

Prices run \$6.00 per ton in stack. A large tonnage is being trucked out of the Division to points in Kansas and Texas.

Live Stock Shipments

Live stock shipments show a considerable decrease over last season, owing to the fact that last season stockmen shipped practically everything that would be marketable, which left very little on hand. However, prices on sheep and hogs have shown some improvement, while cattle prices are so low that there are no offerings. Wool brought a good price, around 25 cents, and lambs about 5c, which was very satisfactory to the sheepmen.

Hail

Several destructive hail storms occurred in the Division this season, damaging crops to the extent of about \$200,000.

The most serious damage was done to vegetable crops and potatoes.

The districts in the south end of the valley were hit several times and the loss was greatest in that territory.

Municipal Water Supply

The municipal plant at Del Norte, which gets its supply of water from a gallery paralleling the Pinos Creek and thence through a pipe line to the city, had no complaints from water users.

The Antonito plant, which is similarly constructed, is threatened this year with an injunction by water users who deem themselves injured by the diversion of this underground flow.

Adjudications

In District 24 an adjudication of water rights was had and decrees for domestic use for direct irrigation and reservoir rights is about to be entered which will clear up a controversy which has caused much trouble among the water users and annoyance to the water officials.

Repairs, Betterments and New Work

The only new work in the Division was the completion of the spillway on the Continental Reservoir.

The new pipe line for the Santa Maria, which has been financed by the Public Works, is expected to get under way as

soon as material can be taken in and authorization by the Federal Government and is expected it will be completed for the 1934 season.

The Terrace Reservoir, which lost 2,000 acre-feet of water last winter, has installed a set of new valves, and made a fair fill for this season's irrigation.

Water Commissioners

The new Water Commissioner in District 35 took over the District in May and has handled the work in a very satisfactory manner.

Very few complaints have come into this office from water users. None of them were of a serious nature, and they were ironed out with apparent satisfaction to all concerned.

County Commissioners again made a request that the Water Commissioners arrange their work with a view to economy, and with a few exceptions their bills came in with some reduction in time. However, the discount on county warrants makes a serious inroad on their salaries, ranging from 5% to 20%.

Rock Creek

This stream was administered from this office again this season with satisfactory results.

A fairly good runoff and no serious loss to the water users.

A new automatic was installed by local interests which helped materially in keeping records. A new weir and automatic will be installed next spring which will complete the system.

Venturi Flumes

There were no Venturi flumes installed in the Division this season owing to financial conditions. The water officials got along with present equipment.

Value of Storage

The value of reservoir water was again demonstrated this season.

On account of the unusual backward spring, farmers who depended on direct irrigation were handicapped by lack of moisture to germinate their seed, which resulted in late planting and shortage of water to mature their crops.

Districts 20, 21, 24 and 35 were able to draw from their storage for early irrigation, which resulted in bumper crops in these districts.

Snowfall 1932-33

Following is report of snowfall and conditions for the year 1932-33. Depth of snow in inches on March 31, 1933.

District No. 20

	Squaw Creek	Crooked Creek	Clear Creek	Alder Creek	Willow Creek	Cat Creek
Average 23 years.....	15.3	18.1	15.2	13.1	43.5	25.3
For 1932	36	28	21	22	48	49
March 1, 1933.....	12	6	0	4	27	32

District No. 21

	Alamosa River	LaJara Watershed
Average 23 years.....	16.4	No Report
1932	34	No Report
1933	20	No Report

District No. 22

	Cumbres	Counselors	River Springs
Average 23 years.....	51	21.2	16.8
1932	76	50	48
1933	34	24	19

Total snowfall at Cumbres in 1933 was 273 inches compared with 495 inches in 1932 and 271 inches average for 24 years.

District No. 24

No authentic report. T. C. McPherson, superintendent of San Luis Power & Water Co., reported 2 inches on north hillside with no snow on south slope, estimated at 50% of normal.

District No. 25

Estimate of snow on ground at 40% of normal.

District No. 26

Estimate not over 35% of normal.

District No. 27

Estimate 25% of normal.

District No. 35

Estimate 40% normal.

Rainfall at the Government Station at Alamosa for 1933

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
.04	.06	.26	.63	.30	1.95	1.25	1.30	1.10	.24	.08

Total for year 7.21 inches, which is considered less than normal, although this does not represent the average for the valley, as the sections nearer the foothills had heavier rains and more frequent.

Temperature. Government Station at Alamosa.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
High	38	55	68	65	78	86	85	85	87	75	59
Low	-30	-23	5	-4	16	31	39	36	30	17	10

The unusual warm weather this fall has allowed the farmers to run water on alfalfa and cultivated lands up until now.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 3 FOR 1934

Alamosa, Colorado, December 15, 1934.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir :

In compliance with the provisions of the statutes I hereby submit my annual report for 1934, showing conditions in Division No. 3 as to the water situation for the season just passed, and as to crop productions and marketing conditions.

The crops harvested in the Division show 25% to 35% of normal as a result of climatic conditions and shortage of water for direct irrigation as shown in acre-feet, 700,740 in 1934 as against 1,086,786 in 1933; while the number of acre-feet carried from reservoirs, 62,391 for 1934, as against 97,058 in 1933.

Respectfully yours,

WALTER D. CARROLL,
Irrigation Division Engineer, Div. No. 3.

USE OF WATER BY DITCHES AND CANALS

District No.	No. of Priorities Reported	First Day Water Was Diverted from Natural Stream for Irrigation	Last Day Water Was Diverted from Natural Streams for Irrigation	Maximum No. of Days Water Was Diverted from Natural Streams
20.....	419	March 10	November 27	263
21.....	76	March 3	November 18	251
22.....	187	March 1	October 20	250
24.....	97	April 1	October 31	214
25.....	96	March 30	October 15	250
26.....	115	March 3	November 15	227
27.....	77	March 15	November 15	243
35.....	70	April 2	October 20	145

District No.	No. Acre-Feet Used by Ditches and Canals from Natural Streams	Total No. of Acres That Can Be Irrigated	Alfalfa	Natural Grasses	Cereals	Pasture
20	336,853	487,544	32,900	52,719	45,762	143,712
21	32,134	90,837	5,527	18,775	4,025	.....
22	168,812	145,920	12,826	27,119	16,197	.....
24	50,086	33,351	4,448	3,303	8,554	.....
25	37,317	63,676	1,788	24,308	614	.....
26	18,900	47,877	3,142	38,186	445	2,961
27	5,998	8,420	790	1,454	90	3,205
35	51,140	53,256	2,604	12,323	1,585	554
Totals	700,740	930,881	64,025	178,187	77,272	150,432

COMPARISON—ACRE-FEET USED

1932	1,223,321
1933	1,086,786
1934	700,740

District No.	Market Garden	Potatoes	Sugar Beets	Lettuce	Field Peas	Beans
	Peas					
20	1,005	43,088	1,259	1,583	29,877	.....
21	2,149	3,571	.....	41	2,872	330
22	1,718	5,345	207	391	6,369	363
24	3,665	677	38	.....	7,754	860
25 .....	.....	130	.....	.....	90	.....
26 .....	.....	210	.....	.....	.....	.....
27	47	194	.....	17	187	2
35	1,163	268	6	.....	1,453	58
Totals	9,747	53,483	1,510	2,032	48,607	1,613

District No.	Cauliflower	Cabbage Orchards	Sweet Clover	Other Crops	Total Irrigated
		Carrots			
20	16,741	9,848	378,494
21	127	1,320	.....	38,737
22	185	.....	21,757	92,477
24	51	.....	1,336	30,686
25	9	.....	7	26,946
26	44,944
27	255	6,241
35	160	.....	67	20,241
Totals	532	18,061	33,270	638,766

COMPARISON

1932	705,787
1933	391,963
1934	638,766

District No.	Superintendent	Repairs	Improvements
20	\$ 840.00	\$1,585.00	\$300,090.00*
21	3,000.00	500.00	.....
22	2,450.00	1,190.00	1,700.00
24	1,865.00	1,490.00	.....
25 .....	.....	2,075.00	.....
26 .....	.....	.....	.....
27 .....	.....	210.00	75.00
35 .....	.....	.....	.....
Totals	\$8,155.00	\$5,560.00	\$301,865.00

*Includes cost of new pipeline into Santa Maria Reservoir.

COST OF ADMINISTRATION

Cost of administration of this Division for the year 1934 was \$13,251.00. This includes salaries of all commissioners and their deputies. 638,766 acres were irrigated at a cost of .02+ per acre for services of water commissioners and their deputies.

District No.	Acres Irrigated	Commissioners' Fees	Deputies' Fees
20	378,944	\$1,928.00	\$ 685.00
21	38,737	1,422.00	405.00
22	92,477	1,296.00	465.00
24	30,686	1,716.00	345.00
25	26,946	1,242.00	.....
26	44,944	1,314.00	45.00
27	6,241	1,380.00	.....
35	20,241	1,008.00	.....
Totals	638,766	\$11,306.00	\$1,945.00

COMPARISON

1932	\$12,376.00
1933	11,427.00
1934	13,251.00*

*Increase on account of longer season and extra deputy hire.

WATER COMMISSIONER RESERVOIR REPORT

District No.	Capacity in Acre-Feet in All Reservoirs	Quantity of Water in Reservoir May 1, 1934	Quantity of Water in Reservoir Nov. 1, 1934	First Day Water Used from Reservoir	Last Day Water Used from Reservoir	No. Days Water Carried from Reservoir
20	132,832	20,477	6,767	April 24	Sept. 26	934
21	31,752	2,726	.....	April 15	Nov. 3	219
22	9,710	1,060	.....	March 10	May 20	50
24	110,749	11,890	4,300	May 7	Sept. 8	416
35	14,483	12,036	.....	May 1	Oct. 6	270
Totals	300,526	47,489	11,067			1,889

COMPARISON
VALUES IN ACRE-FEET

1932—May 1	41,483	November 1	42,211
1933—May 1	56,875	November 1	29,080
1934—May 1	47,489	November 1	11,067

**AMOUNT OF WATER IN STORAGE IN RESERVOIRS ON THE FIRST OF
EACH MONTH FROM DECEMBER, 1933, TO, NOVEMBER, 1934**

Values in Acre-Feet

		Rio Grande	Santa Maria	Continental	Sanchez	Terrace
December,	1933.....	2,084	3,928	2,650	8,457	Dry
January,	1934.....	4,179	4,801	2,650	8,542	Dry
February,	1934.....	5,482	5,623	2,650	8,402	Dry
March,	1934.....	6,964	6,331	2,650	8,655	904
April,	1934.....	7,831	6,842	2,650	9,237	904
May,	1934.....	4,924	6,842	2,650	11,960	1,445
June,	1934.....	746	5,974	2,300	11,257	950
July,	1934.....	441	5,567	1,910	6,979	904
August,	1934.....	414	4,657	1,380	3,085	326
September,	1934.....	426	3,094	1,510	2,387	Dry
October,	1934.....	420	2,566	1,510	4,062	Dry
November,	1934.....	443	2,770	1,510	4,228	Dry
			La Jara	Mountain Home	Smith	Cove Lake
December,	1933.....		1,281	5,049	3,852	384
January,	1934.....		1,281	5,301	4,191	384
February,	1934.....		1,281	5,562	4,869	Dry
March,	1934.....		1,281	5,830	5,336	Dry
April,	1934.....		1,281	6,243	5,336	483
May,	1934.....		1,281	6,700	5,336	1,060
June,	1934.....		1,281	5,830	3,854	135
July,	1934.....		1,006	3,600	3,360	Dry
August,	1934.....		Dry	2,116	1,340	Dry
September,	1934.....		Dry	1,602	661	Dry
October,	1934.....		Dry	Dry	431	Dry
November,	1934.....		Dry	Dry	Dry	Dry
				Hunter's Lake	Spruce Lake No. 1	Spruce Lake No. 2
May	1, 1934..	120	97	48	88	93
June	1, 1934..	No Report	97	48	88	93
July	1, 1934..	No Report	8	0	88	93
August	1, 1934..	No Report	0	0	0	0
September	1, 1934..	No Report	0	0	0	0
October	1, 1934..	No Report	0	0	0	0
November	1, 1934..	60	0	0	0	0
		Dude Ranch	Road Canon	Poage	Lost Lakes	Shaw
May,	1934.....	125	2,400	....	800	638
June,	1934.....	125	2,350	....	800	625
July,	1934.....	117	2,250	....	676	503
August,	1934.....	0	2,140	....	20	379
September,	1934.....	0	2,140	....	0	244
October,	1934.....	0	2,140	....	0	244
November,	1934.....	0	2,140	....	0	244
		Bristol Head No. 1	Bristol Head No. 2	San Luis Valley	Regan	Chenoweth Lake
May,	1934.....	0	0	766	300	40
June,	1934.....	0	0	766	300	40
July,	1934.....	0	0	0	300	30
August,	1934.....	0	0	0	116	0
September,	1934.....	0	0	0	0	0
October,	1934.....	0	0	0	0	0
November,	1934.....	0	0	0	0	0

		Eastdale No. 1	Eastdale No. 2	GoIn Lake	Humphries Reservoir	Trout Lake	Wright's Lake	Ruby Lake
May,	1934.....	11	Dry	90	842	198	40	120
June,	1934.....	..	Dry	90	842	198	40	120
July,	1934.....	..	Dry	35	842	88	0	8
August,	1934.....	..	Dry	35	714	0	0	24
September,	1934.....	..	Dry	0	680	0	0	0
October,	1934.....	..	Dry	0	...	0	0	0
November,	1934.....	4	Dry	0	...	0	0	0

District No.	No. of Acre-Feet of Water Carried from Reservoir During Season
20.....	14,398
21.....	2,726
22.....	1,060
24.....	24,313
35.....	19,894
Total.....	62,391

COMPARISON

1932	147,107
1933	97,058
1934	62,391

Rainfall

Rainfall over the Division was considered below normal, although no records obtainable for past years. However, a station has been installed in Alamosa by the Adams State Teachers College, and below I have tabulated a record for the past three seasons:

	April	May	June	July	Aug.	Sept.	Oct.	Nov.
1932....	.49 in.	.48	1.05	.96	.50	.16	.38	..
1933....	.63	.30	1.05	1.25	1.30	1.10	.24	.08
1934....	.03	1.04	.28	1.33	.41	.82	.00	.16

Report furnished by Frances Hart, Hydrographer; station located at San Luis Lakes:

	April	May	June	July	Aug.	Sept.	Oct.
1932....	.05	.45	.51	1.16	.65	.34	.12

Temperature

Following is the record of temperature as furnished by the U. S. station at the Adams State Teachers College:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
High	46	54	65	73	81	85	91	80	80	79	66
Low	—16	7	1	9	24	30	42	21	21	12	—7

Snowfall in Inches—March 31

	Squaw Creek	Crooked Creek	Clear Creek	Alder Creek	Willow Creek	Cat Creek
Average for 23 years...	15.3	18.1	15.2	13.1	43.5	25.3
For 1932.....	36	28	21	22	48	49
For 1933.....	12	6	0	4	27	32
For 1934.....	6	0	0	6	24	18

District No. 21

	Alamosa River	La Jara Watershed
Average for 23 years.....	16.4	...
For 1932.....	34	No Record
For 1933.....	20	No Record
For 1934.....	12	No Record

District No. 22

	Cumbres	Counselor	River Springs
Average for 23 years.....	51	21.2	16.8
For 1932.....	76	50	48
For 1933.....	34	24	19
For 1934.....	13	0	0

For the year 1933-34, the snowfall at Cumbres was 129 inches as against 271 inches average over a 24-year period, and 273 inches for 1933, 495 inches for 1932.

The east range fared better than the west side of the valley. District No. 25 had a fair runoff and crops generally were about normal.

Districts Nos. 24 and 35 had a good supply of water for direct irrigation and this, with the storage, gave practically all of the farmers in these two districts enough water needed to produce bumper crops of market vegetables.

SNOW REPORT—1934**District No. 24**

No authentic check. Reports indicated that the snow on the ground on March 31st was 50% of normal.

District No. 25

Kerber Creek, 13 inches.

North Crestone, 23 inches.

Estimated the snowfall in this District was about normal.

District No. 26

Estimated snow on the ground on Saguache watershed was 35% of normal.

District No. 27

Carnero, 2 inches.

North Carnero, 21 inches.

Estimated about 50% of normal.

District No. 35

Reported 50% of normal but late snows brought the average up to nearly normal.

MUNICIPAL WATER SUPPLY

The Del Norte gravity line supplied the town of Del Norte with no complaints.

Antonito water plant, which supplies the town from a gallery under the river bed through a wooden pipe line, required considerable work cleaning the silt out of the gallery and replacing the wire bands, which had become weakened with rust. These bands were replaced with heavy metal bands on the pipe. The work was done as a C. W. A. project.

Adjudication

In District No. 24 the adjudication of decrees for irrigation, domestic and power purposes had its final hearing but decree has not been entered.

Repair, Betterment and New Work

The new pipe line for the Santa Maria intake is practically completed and will be ready for the 1935 season.

Water Commissioners

Owing to the death of William Neff, water commissioner in District No. 21, a new man, Thomas Ormond, was appointed and took over the work late in the season. His work has been very satisfactory.

Very few complaints have come into the office from water users, although it has been the worst season for water shortage ever recorded. A few arrests were necessary where water users continued to take water unlawfully, but generally the commissioner handled the situation with very little friction.

Headgates—Flumes

There was practically nothing done in the way of installing headgates and measuring flumes, although they were badly needed. However, owing to financial conditions, the water officials tried to get along with present equipment until conditions improve.

REPORT OF CROPS IN THE DIVISION—FOR 1934**Potatoes**

The potato crop in this Division is much below normal. It is estimated at not more than 25% of average due to the inroads made by the Psyllid Nymph, also to lack of irrigation water and rainfall. Hundreds of acres not worth digging, and where dug, produced 10 to 15 sacks of markets per acre, and balance seed. It is estimated that 20% of markets and all of the seed are stored.

The railroad and truck shipments amount to 1,520 cars as compared with 4,120 cars in 1933.

Head Lettuce

The head lettuce crop was very light and the hot, dry weather during the growing season caused the heads to go to seed before they could be harvested, making the crop unprofitable.

Sugar Beets

Smaller crop was planted, only 119 cars harvested as compared with 350 cars in 1933. The yield was eight to nine tons per acre as compared to fifteen tons in 1933. Sugar content, 18 to 25%.

Market Garden Peas

A fair crop of market garden peas was harvested, around 65% of normal. Prices averaged 3½c per pound, some higher. A good money crop.

Cauliflower

This crop is usually a good producer and of excellent quality. It showed about 65% of normal and prices ranged around 50c a crate, which made the farmer good money.

Cabbage

The cabbage crop was about 45% of normal and brought \$20.00 per ton to growers. On account of heavy tonnages per acre, the farmer made good money.

Hail

Two destructive hail storms swept through part of Conejos County, which cost the farmers a \$250,000 loss, especially in the vegetable crops around La Jara.

Cereals

Owing to the shortage of irrigation water, the wheat crop in the valley was not more than 35% of normal.

Oats and barley were only about 25%.

Field peas about 25%.

Hay

The native hay crop was about 20% of normal, while alfalfa produced 45%. However, demand is good and prices around \$15.00 give the farmer a fair return.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 4 FOR 1933

November 30, 1933.

M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

I have the honor at this time to present to you my 23rd annual report of Irrigation Division No. 4 for the year ending on the above date.

The year 1933 is the third consecutive year that the Western Slope of Colorado—especially this Division—has had a water supply below normal. During the month of December, 1932, the precipitation was slightly above normal, but January, February and March, 1933, were below normal in precipitation, the average for January being minus .28 $\frac{1}{3}$, for February minus .31 and for March minus .39 $\frac{2}{3}$.

A perplexing water situation existed on the Grand Mesa watershed, which was also true of the North Fork and other portions of the Division. The cold weather delayed the melting of snow, and the creeks were running below normal at a time of the year when water should have been available to fill the reservoirs. The result of this cold weather in the spring, however, held the water supply back so that the snow solidified and lasted much later in the summer than was expected. The average depth of snow over the Grand Mesa and North Fork watersheds was about 5 $\frac{1}{2}$ feet, with a water content of about 20%.

The streams of the Division were much below normal during the summer and it was necessary to turn water from the Gunnison Tunnel during August and September to supply ditches with earlier priorities in Delta County; as a consequence, the Gunnison Tunnel, with a decree of 1,100 second feet, had a supply of water as low as 350 second feet.

Two very important irrigation suits originating on a Grand Mesa reservoir were decided by District Judge Straud M. Logan of Grand Junction. The plaintiff in these suits contended that they had a right to store water during the irrigation season, when water was needed for irrigation purposes. Judge Logan decided that reservoirs are not entitled to water for storage purposes during the irrigation season if there is a demand for its use for direct irrigation. The suits were entitled: "The Park Reservoir Company, a corporation, plaintiff, vs. The Cedar Mesa Ditch and Reservoir

Company, a corporation, et al., M. C. Hinderlider, State Engineer, H. C. Getty, Irrigation Division Engineer, Charles H. Luellen, Water Commissioner in Water District No. 40, defendants; The People of the State of Colorado on Relation of the Park Reservoir Company, a corporation, Relator, vs. M. C. Hinderlider as State Engineer of the State of Colorado, H. C. Getty as Irrigation Division Engineer of Irrigation Division No. 4 of the State of Colorado, and Charles H. Luellen as Water Commissioner of Water District No. 40 of the State of Colorado, Respondents."

The Denver Water Board was interested in the case and was represented by Lindsey & Larwell, James D. Parriott and R. C. Hecox. Several Weld County storage companies were also interested and filed a brief in the case, being represented by C. D. Todd of Greeley. The question involved in each case is: "Who has the superior right to the water of the streams of the State for irrigation purposes, as between those who divert and store water in reservoirs for later use, and those who divert directly from the streams for immediate use when needed, under priorities post-dating a storage priority?"

In the first case, No. 2405, plaintiff asks to have his decree for storage water declared superior to the rights of the named defendant companies under their decrees subsequent in time to plaintiff's priority right but for direct irrigation, and praying that the defendant water officials be enjoined from supplying the named defendant companies with water for direct irrigation when needed, ahead of plaintiff's storage rights, which it is alleged the water officials are and have been doing.

In the second case, No. 2438, plaintiff prays for a writ of mandamus against the named defendant water officials, commanding them to allow plaintiff to take and store waters without regard to whether said waters are needed for direct irrigation, which it is alleged the water officials, named defendants, now refuse and hitherto have refused to do.

These cases are now in the Supreme Court.

During the fall considerable reservoir work was done in this Division, and about \$10,000 was spent on repairs and improvements on about twelve reservoirs. Some of this work had been ordered by your office.

The three principal water districts of this Division are Districts 40, 41 and 42. To give you a clearer idea of the importance of these districts, I give the following statistics: In District No. 40 the amount spent for superintendence this year was \$11,990; for operation and maintenance, \$48,751. In District No. 41, superintendence, \$10,000, operation and maintenance, \$73,000. In District No. 42, superintendence \$12,924, operation and maintenance, \$104,346.

I would like to recommend a change in the Water Commissioners' Annual Reservoir Report blanks. In columns 8, 9 and 14, the

amount of water should be given in acre-feet instead of cubic feet. In the Water Commissioners' field books, commencing with page 67, the amounts given in the second and last columns should be in acre-feet instead of cubic feet.

May I again recommend a change in the law relative to Water Commissioners-at-large? In the Session Laws of 1929, page 419, in the fourth line of Section 1, eliminate the following: "Where there is no regularly appointed Water Commissioner." Change the third word of the third line from the bottom from "1" to "2." On page 420, eliminate the following, "Provided that he shall not be employed more than 60 days during one calendar month."

Attached hereto are tabulated statements of the Water Commissioners' Ditch and Reservoir reports.

Yours very truly,

H. C. GETTY,
Irrigation Division Engineer, Division No. 4.

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1933

Dist. No.	Ditches Reported	Number of Priorities	Amount of Appropriation Cubic Feet Per Second	Capacity of Canals and Ditches Cubic Feet Per Second	Length of Canals or Ditches in Miles
28	195	243	639.80	1,990.22	239.80
40	400	359	2,180.52	34,469.00	846.60
41	30	53	2,350.85	3,318.00	299.00
42	270	258	4,462.19	5,238.25	605.05
59	90	93	443.86	795.70	120.75
60	90	106	589.17	683.65	280.25
61	13	31	168.00	89.75	21.60
62	30	32	106.72	227.50	48.25
68	173	186	667.70	809.00	236.88
Totals	1,291	1,361	11,508.87	47,621.07	2,698.18

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1933

Dist. No.	First Day Water Was Used	Last Day Water Was Used	Average No. Days Water Was Used	Average Daily Amount in Second-Feet	No. Acre Feet Used	No. Acres Can Be Irrigated
28	April 1	July 25	85	627.25	106,975	31,841
40	Mar. 10	Nov. 15	135	1,482.3	365,105	203,046
41	Mar. 22	Nov. 30	168	1,197.5	464,059	150,425
42	Mar. 10	Nov. 30	96	1,952.38	713,564	210,131
59	Mar. 1	Oct. 25	84	429.5	75,444	20,587
60	Mar. 15	Oct. 20	94	319.95	72,404.40	41,314
61	April 1	Nov. 16	181	22.34	8,643.00	5,612
62	May 1	Nov. 1	85	94.2	18,414.00	4,825
68	April. 12	Nov. 15	56	374.11	58,709.85	26,042.5
Mar.	1	Nov. 30	109	6,499.53	1,883,318.25	693,823.5

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
CROP REPORTS, 1933

District No.	Alfalfa	Natural Grasses	Cereals	Orchards
28	35	27,111	62	....
40	61,964	31,153	21,973	13,111
41	18,680	4,410	16,960	2,672
42	48,294	14,983	10,214	7,683
59	110	13,086	15	....
60	16,186	3,676	3,248	110
61	1,548	....	706	14
62	190	3,745	....	....
68	4,299	8,263.75	1,583.25	19.5
Totals	151,306	106,427.75	54,761.25	23,609.5

District No.	Market Gardening	Potatoes	Sugar Beets	Other Crops	Total
28	18	30	....	....	27,256
40	852	3,485	4,866	8,146	145,550
41	3,810	7,005	5,390	13,607	72,534
42	264	1,745	2,003	26,805	111,991
59	60	84	....	75	13,430
60	1	6	....	....	23,227
61	....	....	....	109	2,377
62	....	36	....	100	4,071
68	48	189	20	24.5	14,447
Totals	5,053	12,580	12,279	48,866.5	414,883

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1933

District No.	Superintendence	Repairs	Improvements
28 .....	.....	.....	.....
40	\$ 11,909.00	\$ 46,258.00	\$ 2,493.00
41	18,515.00	22,850.00	22,605.00
42	12,924.00	103,930.00	416.50
59	600.00	2,295.00	460.00
60	2,950.00	2,819.00	1,612.00
61	600.00	.....	.....
62 .....	.....	1,050.00	80.00
68	219.00	6,335.50	139.50
Totals	\$ 47,717.00	\$185,537.50	\$ 27,806.00

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS, 1933

Dist. No.	No. in Dist.	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1st	Quantity of Water in Reservoir Nov. 1st
40	117	2,232	917,644,540	917,644,540	48,096,000
42	56	1,811.41	671,629,339	.....	.....
60	2	.....	219,366,117	20,000,000	13,936,611
61	1	.....	52,272,000	.....	.....
Totals	176	4,043.41	1,860,911,996	937,644,540	62,032,611

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS, 1933

Dist. No.	First Day Water Was Used	Last Day Water Was Used	Average No. Days Water Was Used	Average Daily Amount in Second-Feet	No. Acre-Feet Carried
40	June 11th	Oct. 10th	74	574	42,098
42	June 16th	Oct. 2nd	33	161	10,626
60 .....	.....	.....	..	..	.....
61	April 10th	Sept. 30th	..	..	.....
			54	735	52,724

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS, 1933

District No.	Superintendence	Repairs	Improvements
40	\$3,210.50	\$3,150.00	\$4,200.00

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 4 FOR 1934

December 24, 1934.

M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

Herewith I present to you my 24th annual report of Irrigation Division No. 4 for the season of 1934. This report has been delayed because the Water Commissioners did not have their ditch and reservoir reports made out in time to have this report in on November 30th.

Might I suggest that the law should be changed so that the Water Commissioners have their reports in to the Division Engineers by December 15th instead of November 15th, and that the Irrigation Division Engineers be required to have their reports in by January 1st?

The snowfall during the fall and winter of 1933 and the early winter of 1934 was exceedingly light; so much so that all the passes usually closed by December 1st were kept open all winter. Monarch Pass, which is rarely open after the middle of November, was open all winter with the exception of a few days. The same was true of the Million Dollar Highway from Ouray to Durango. I state these facts to show by comparison how extremely light was the snowfall. 1933 was below normal as to moisture and irrigation water, but to show how extremely dry the season of 1934 was, the Uncompahgre River's peak flow the spring of 1933 was 2,000 second feet; this year it was 700 second feet, and commenced to fall immediately after reaching the peak. The flow of water in the Gunnison Tunnel fell to 300 feet during the latter part of the season. In fact, the Gunnison River and the Colorado River were both dry during portions of the late summer.

There are something over 200 reservoirs on Grand Mesa, and the snowfall was so light that the reservoirs on the Delta side only stored about 15% of their capacity. Conditions for storage were not quite so acute on the Plateau side of the Grand Mesa watershed, but the reservoirs stored less than 50% of their normal capacity.

The lack of storage water very seriously crippled crops on Surface Creek Mesa, and especially on Cedar Mesa, where it was necessary at times to drive stock five miles for drinking water.

There was an extreme shortage of water in Gunnison County, a condition which is very rare indeed. When it became necessary to close the ditches in Gunnison County that were junior to the

Uncompahgre Project decree, it was necessary, in order to save the crops both in Gunnison County and under the Uncompahgre Project, to make some kind of a compromise whereby the crops could be saved in both localities. Consequently, a meeting of about 200 water users of the Tomichi, Gunnison and Ohio Creek valleys was held at Gunnison—at which meeting a compromise was reached whereby the junior ditches in Gunnison County were allowed to run until the 15th of July, at which time all ditches were closed to supply the Gunnison Tunnel with water. This compromise saved the crops in Gunnison County, and when the water was turned loose on the 15th of July, water in the Gunnison Tunnel was raised from a flow of 400 second feet to a flow of 850 second feet.

The Cochetopa District also suffered by a water shortage, as did every other portion of the Division.

So extreme was the drouth in the Paradox Valley in western Montrose County that the water supply was only 6% of normal.

However, a contract is being let at this time to build the Taylor Park reservoir, which will be of great advantage to the Uncompahgre Valley and will insure an abundance of water at all seasons, as the storage capacity of this reservoir will be 106,000 acre-feet. The Government is furnishing the money for this reservoir, and also to recondition the Gunnison Tunnel and the whole canal system.

There is much effort being made on the Eastern Slope in the way of transmountain diversion, and if the people of the Western Slope are wise, they will oppose vigorously any transmountain diversion of water from the Western Slope, unless compensating reservoirs are provided for, to be built and maintained by the parties making the transmountain diversion. The last four years have proven conclusively that there is no water available for transmountain diversion without injuring seriously the irrigation projects of the Western Slope.

The Carleton interests have constructed a large ditch which taps the headwaters of the Tomichi and runs along the mountain side for several miles, cutting off the runoff into the Tomichi, and taking it over the divide at Marshall Pass, to be turned into the Arkansas River. It will be necessary for the Division Engineer of this Division to see that this ditch is not allowed to run during the time when the water is needed for decreed priorities along the Tomichi and Gunnison Rivers.

By co-operation between the state and the U. S. G. S., many of the rating stations were rebuilt and put in splendid condition. This work was done jointly by the State of Colorado and the United States Geological Survey. The stations that were rebuilt or improved are as follows:

The Gunnison River at Grand Junction,

Plateau and Buzzard Creeks at Collbran,

The North Fork of the Gunnison River above Somerset,

The Uncompahgre River above Montrose.

The following are statements made by the two superintendents of the Reclamation Projects:

“UNCOMPAHGRE PROJECT, COLORADO

“Season of 1934

“Under the terms of the contract between the Bureau of Reclamation and the Uncompahgre Valley Water Users Association approved August 4, 1931, the operation and maintenance of the project was continued.

“The project irrigation system includes approximately 600 miles of canals and laterals and requires about 1,400 second feet of water entering the project during the periods of peak demand.

“The water supply available for irrigation purposes was the shortest in the entire history of the project. Rotation of water was necessary throughout the irrigation season with the exception of a period of four or five days immediately following a spring rain, during which period it was possible to deliver water on demand under the entire system. During the midsummer period water was delivered on the basis of 24 hours on and from 5 to 6 days off. After rains began in the hills about the first of August it was possible to increase the time water was delivered to 36 hours and some of the time to 48 hours. In general it was attempted to so rotate the delivery of water that the period during which water was off would not exceed seven days. The necessity for continuous rotation, of course, entailed a heavy seepage loss in the canal system.

“Water was delivered upon demand by the water user on an acre-foot basis. The lands generally on the west side of the Uncompahgre River were furnished 5 acre-feet of water for a minimum charge of \$1.75. Lands generally on the east side of the Uncompahgre River, which consist principally of adobe soils, were furnished 4 acre-feet of water at a minimum charge of \$1.40 per acre. Excess water was furnished at the rate of \$0.35 for the first 3 acre feet and \$0.25 per acre-foot thereafter to the water users on the east side of the Uncompahgre River, and at the rate of \$0.35 per acre-foot for the first two acre-feet to the water users on the west side of the Uncompahgre River. All water in excess of seven acre-feet was furnished at the rate of \$0.25 per acre-foot to all water users on the project. No excess water was delivered during the season of 1934.

“Operating conditions in the project canals and laterals were generally good throughout the irrigation season. No operating troubles were experienced in connection with the Gunnison Tunnel and the South Canal.

Minor maintenance difficulties were had on side hill canals due to sliding banks below, or to irrigation from above.

"Crop yields were poor due to the shortage of water. Shortage of water and hot weather combined affected some crops more than others, particularly onions.

"Fall weather conditions have been favorable for the harvesting of all crops.

"It is estimated that approximately 60,000 acres were irrigated during the season. The acreages of principal crops were approximately as follows: Alfalfa 23,020 acres, apples 742 acres, barley 2,018 acres, sugar beets 2,144 acres, corn 6,333 acres, oats 3,920 acres, onions 1,555 acres, potatoes 5,969 acres, wheat 7,038 acres.

"Appreciation is expressed to the office of Division Irrigation Engineer for the efficient and impartial manner in which the stream diversions were administered in this section of the Western Slope during the most trying year in the history of western Colorado irrigation.

"JESS THOMPSON, Superintendent."

"GRAND VALLEY PROJECT, COLORADO

"The Grand Valley project had an ample supply of water until July 15th, at which time a sharp drop was had in the river which allowed us about a 40% supply. This condition continued throughout the balance of the season with the exception of several rises to a full head for 3 or 4 days at a time from rains in the higher country. Under these conditions we were able to mature nearly a normal crop. As an average our water users are in a better financial condition this fall than for several years, due to better prices for farm products.

"W. J. CHIESMAN, Superintendent."

I have been Irrigation Division Engineer in this District for the 24 years just past, and this is my last annual report, as I have resigned from this position in order to accept a position on the Civil Service Commission. My successor will be Mr. Fred Hotchkiss, a competent civil engineer, who, I am sure, will carry on the work in a very satisfactory manner, and I bespeak for him the same courteous and efficient help that has always been obtained from your office. I trust that during the early season of 1935 you will furnish Mr. Hotchkiss with a Hydrographer to assist him, for a time at least, while he is getting familiar with the Division and the duties he will be called upon to perform.

In closing, I wish to heartily thank you and your entire office force for the wonderful co-operation and assistance you have always given me.

Attached hereto are the tabulated statements of the Water Commissioners' ditch and reservoir reports.

Yours very truly,

H. C. GETTY,

Irrigation Division Engineer No. 4.

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
DITCH REPORTS, 1934

Dist. No.	Ditches Reported	No. of Priorities	Amount of Appropriation, Cu. Ft. Per Sec.	Capacity of Canals and Ditches, Cu. Ft. Per Sec.	Length of Canals or Ditches in Miles
28	190	237	643	3,123	236
40	350	327	2,204	3,133	1,279
41	30	31	2,325	3,231	282
42	275	262	4,447	5,223	948
59	90	102	656	1,118	133
60	35	77	626	669	241
61	10	24	43	78	36
62	30	33	129	290	53
68	173	186	663	811	216
Totals	1,233	1,279	11,741	16,741	3,424

Dist. No.	First Day Water Was Used	Last Day Water Was Used	Average No. of Days Water Was Used	Average Daily Amount in Second-Foot	No. Acres-Foot Used	No. Acres Can Be Irrigated
28	April 1	Aug. 1	65	3,873	64,488	31,146
40	Mar. 1	Nov. 30	132	1,079	284,641	247,007
41	April 1	Oct. 31	127	1,489	556,879	141,495
42	Jan. 1	Dec. 31	97	1,694	622,020	200,039
59	May 5	Oct. 20	55	499	56,498	17,588
60	Jan. 1	Dec. 31	127	154	67,163	135,794
61	April 1	Sept. 25	108	18	4,261	5,000
62	April 10	Oct. 15	57	119	14,294	5,755
68	Mar. 29	Nov. 15	52	303	47,936	27,437
Totals			103	9,228	1,718,180	806,261

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
CROP REPORT FOR 1934

Dist. No.	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardening	Potatoes	Sugar Beets	Other Crops
28	80	27,852	.....	.....	5	26	.....	.....
40	55,280	30,520	12,768	12,163	958	2,928	4,150	26,145
41	15,765	1,230	11,070	2,795	2,138	6,515	6,230	16,226
42	50,709	14,285	9,582	1,228	258	1,120	525	29,366
59	126	15,644	.....	.....	.....	84	.....	47
60	15,913	4,325	3,235	114	.....	9	.....	2
61	1,936	749	501	60	10	3	.....	59
62	630	3,925	.....	.....	.....	10	.....	114
68	3,816	8,076	1,041	24	35	153	9	50
Totals	144,255	106,656	38,197	16,384	3,404	10,848	10,914	72,009

IRRIGATION DIVISION NO. 4

District No.	Total Irrigated	Superintendence	Repairs	Improvements
28	27,963	.....	.....	.....
40	144,912	\$ 8,510	\$ 20,093	\$ 425
41	62,019	21,625	19,475	13,285
42	107,073	5,526	90,859	9,971
59	15,901	400	2,150	170
60	23,598	3,450	2,930	2,500
61	3,318	1,000	.....	355
62	4,679	.....	702	100
68	13,204	5	5,144	1,212
Totals	402,667	\$ 40,516	\$ 141,353	\$ 28,018

IRRIGATION DIVISION NO. 4

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORT, 1934

Dist. No.	No. in District	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoir May 1st	Quantity of Water in Reservoir Nov. 1st
40	128	3,560	1,827,261,668	714,727,864	5,184,000
42	60	1,979	681,121,179	.....	.....
60	3	.....	122,633,117	111,450,058	8,167,500
Totals ...	191	5,539	2,631,015,964	826,177,922	13,351,500

IRRIGATION DIVISION NO. 4

Dist. No.	First Day Water Was Used	Last Day Water Was Used	Average No. Days Water Was Used	Average Daily Amt. in Sec. Ft.	No. Acre Ft. Carried
40	May 1	Nov. 30	13	343	16,429
42	May 1	Oct. 29	34	71	4,657
60 .....	.....	.....	..	..	.....
Totals.....	.....	.....	24	414	21,086

IRRIGATION DIVISION NO. 4

Dist. No.	Superintendence	Repairs	Improvements
40	\$ 1,110	\$ 756	\$ 2,225.00
42	1,344	658	288.25
60 .....	.....	.....	.....
Totals	\$ 2,454	\$ 1,414	\$ 2,513.25

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 5 FOR 1933

Glenwood Springs, Colorado, November 27, 1933.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

I herewith submit my annual report as Division Engineer for the season of 1933, for Irrigation Division No. 5, in accordance with the provisions of the statutes.

Irrigation Division No. 5 is composed of ten water districts, extending into seven different counties. It is watered by the Colorado River, the largest stream in the State of Colorado, and by the various tributaries of said river. The farm lands in the Division are rich in phosphates and other elements which contribute to heavy crop production, thus making farming a very profitable industry under ordinarily favorable conditions.

However, the Division has suffered greatly the past year from the general economic condition which appears to be prevalent everywhere, and, although our crops have been very satisfactory in most portions of the territory, averaging almost up to normal for this very productive area, the demand for our product is very slow and the prices are not very encouraging, notwithstanding the offerings on some of our products are much better than those prevailing last year.

A lighter snowfall last winter than usual, coupled with the fact that on the majority area of the Division there was little or no summer precipitation, caused great uneasiness to the farmers, who feared that crop yields would be very light. But a few light rains in the Roaring Fork and Cattle Creek valleys, in the late summer, supplemented the stream flow, and resulted in very satisfactory yields. Many acres of potatoes yielded from 200 to 250 sacks per acre of excellent quality and, although the price offered (80 to 90 cents per cwt.) is not what the farmers had hoped for, it will be the means of distributing considerable money in the country, and prove a life saver to those who have from 5,000 to 11,000 sacks of excellent tubers stored in their cellars. Cereals and alfalfa gave a slightly less than normal yield, while sugar beets in the Silt and Rifle sections suffered slightly from a shortage of water when it was most needed. The fruit crop throughout the Division was very light, due to heavy freezing last winter, which in some instances killed the trees as well as the fruit buds.

Not only was there a slightly subnormal water supply in the streams in the farming sections, but the precipitation on the forest

ranges was very slight, which probably will necessitate some rearrangement of the grazing program on the National Forests for next year.

The cattle market has suffered a very severe slump, resulting in great discouragement and heavy financial loss to both the beef and dairy industries. In most cases cattle growers, placing their stock on the market, have been forced to take for them considerably less than the same animals would have brought a year ago. This has resulted in a very distressing condition in this large industry, which has been the main source of the prosperity of this territory in years past. The hog industry has suffered a similar slump, resulting in great disappointment to those who have lent their efforts to that branch of farming.

The sheep industry has proved quite profitable to those devoting themselves to that branch of the stock industry, and, owing to very satisfactory prices and a minimum of hazards, the flockmasters have been able to retrieve some of their losses of the past years, and they are facing the future with greater confidence than has been theirs for some time.

The transmountain undertaking known as the Twin Lakes project, diverting water from the Roaring Fork River through a tunnel to the Arkansas River in Division No. 2, to which project I made reference in my 1932 report, is now under way, and it is expected that the work of constructing the tunnel will progress steadily until the project is completed.

The work of administering the Division called for and received more attention from me this year than usual, because of the insistence of County Commissioners that the expense of administration be pared to the lowest point consistent with good service. This necessitated rules and admonitions on my part, which were not received any too kindly by some of the water commissioners and deputies, but, on second consideration, they fell into line very nicely with the general plan of retrenchment, and I was able to save a considerable sum to the taxpayers, and I believe without any material sacrifice of service.

Grateful to your office for valuable advice and assistance during the year, I am

Very truly yours,

A. J. DICKSON.

Irrigation Division Engineer, Irrigation Division No. 5.

SUMMARY FOR DIVISION NO. 5—1933

District No.	4	5	6	8	9	10
	Amount of Appropriation Cu. Ft. Per Second	Capacity of Canal	Length of Main Ditch in Miles	First Day Water Used from Natural Stream	Last Day Water Used from Natural Stream	No. of Days Water Carried from Natural Stream
37.....	1,203	933	315	May 15	Oct. 1	111
38.....	821	1,207	297	Mar. 15	Oct. 15	101
39.....	528	478	176	Apr. 1	Oct. 31	141
45.....	711	782	221	Apr. 1	Oct. 10	65
52.....	164	309	48	Apr. 15	Sept. 15	56
53.....	360	....	96	Apr. 15	Nov. 1	105
70.....	156	315	87	Mar. 3	Nov. 15	154
Totals.....	3,943	4,024	1,144			104

District No.	11	12	13	14	15	16
	Average Daily Amt. of Water During Season (Cu. Per Sec.) from Natural Stream	No. of Acre-Feet Used by Canal for Season from Natural Stream	Total Number of Acres That Can Be Irrigated	Alfalfa	Natural Grasses	Cereals
37.....	432	100,069	26,850	11,061	7,076	3,399
38.....	766	303,834	34,407	18,953	6,903	5,670
39.....	333	95,575	23,776	11,421	3,830	2,558
45.....	370	55,759	39,284	15,843	5,258	5,327
52.....	125	13,747	10,562	1,891	2,275	443
53.....	143	76,580	22,298	469	10,656	785
70.....	108	37,110	13,510	5,892	202	888
Totals.....	2,227	682,674	176,687	65,530	27,200	19,070

SUMMARY FOR DIVISION NO. 5—1933

CROPS IRRIGATED FROM CANAL IN ACRES

	17	18	19	20	21	22
District No.	Orchards	Market Gardens	Potatoes	Sugar Beets	Beans	Peas
37.....	...	263	1,377	....	....	213
38.....	...	....	3,207	....	....	....
39.....	550	68	979	2,217	2	4
45.....	447	57	447	616	30	....
52.....	...	....	17	....	....	....
53.....	...	....	340	....	....	....
70.....	73	60	257	22	46	161
Totals.....	1,070	448	6,624	2,855	78	378

	23	24	25	26	27	28
District No.	Cabbage	Other Crops	Total Irrigated	Superin- tendence	Repairs	Improve- ments
37.....	...	20	23,823	....	\$ 19,232	....
38.....	...	....	34,847	....	....	....
39.....	...	294	21,922	\$ 2,745	10,193	\$ 1,235
45.....	3	492	28,590	4,298	....	185
52.....	...	....	4,626	1,852	....	275
53.....	...	165	16,554	....	2,960	....
70.....	147	32	7,780	....	1,802	....
Totals.....	150	1,003	138,142	\$ 8,895	\$ 34,189	\$ 1,695

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 5 FOR 1934

November 15, 1934.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir :

I herewith present my annual report as Division Engineer for Irrigation Division No. 5 for the year 1934.

The extremely light snowfall of the winter of 1933-34, coupled with the almost complete lack of precipitation during the past summer, have combined to brand 1934 the most unfavorable crop season ever experienced in western Colorado.

Streams heretofore noted for their unfailing supply sank to new low levels, while other streams considered reasonably dependable supplied water this year to less than half of their usual number of ditches. Numerous mountain springs, formerly contributing very materially to the supply of small streams, this year were dry throughout the season.

This unfortunate condition not only caused a great shrinkage in the stream flow, interfering very seriously with crop production, but also caused an almost complete abandonment of some of the grazing areas in the Division because of the lack of stock water.

That portion of the Division to suffer the most serious loss by reason of the excessive drouth was District No. 70, consisting of Roan Creek and its tributaries. In this area the water commissioner was compelled to deny to several families even the water necessary to irrigate their gardens, and many families were obliged to haul or carry for a considerable distance the water necessary to supply their household needs.

In District No. 45, on what is known as Battlement Mesa, only one ditch was in operation this summer and this furnished the only source of domestic supply for the twenty-four families residing on farms in that area, and so alarmed were the residents at the shrinkage in midsummer of this supply that they appealed to the Federal Government for financial aid to drill some deep wells to supply the urgent needs of the community. While negotiations were pending that section was favored with a couple of rains, which temporarily relieved the tense situation.

Elk and Canon Creeks in District No. 39, which have heretofore been well supplied, with the exception of the season of 1931, this year made heavy demands upon us for service, while on Capitol Creek in District No. 38, where there is usually an abundant water supply, we were this year obliged to place a local deputy.

In view of the very unfavorable condition referred to above, crops, as might be expected, were far below the average and much lacking in uniformity throughout the Division. In some sections, notably the Roaring Fork Valley between Aspen and Glenwood, the Colorado River Valley between New Castle and Rifle, and the Eagle and Gypsum valleys, crops were perhaps 60 per cent of normal, while other sections varied from rank failure to 40 per cent of the usual, while the quality, especially of potatoes, was considerably below the average.

The extreme water shortage of the past season has accentuated the need for storage reservoirs, and considerable investigation has been made, especially by state and Federal officials, looking to the feasibility of reservoir construction. I am not advised of the result of these investigations.

Because of the excessive demands on water commissioners for service in some sections, calling for increased expenditure of funds, the county commissioners of Garfield County on October 2 issued a notice to all water officials to the effect that the county irrigation budget had been exhausted and that they would not be responsible for any more bills for water service against the county during the present fiscal year. Their action was based on the new budget law found in S. L. 1933 at page 666, and especially Sec. 10 thereof. I do not know what the final outcome will be, but I know some water commissioners who are very much disappointed.

Because of the extreme shortage of the hay crop, farmers have made heavy shipments of marketable livestock this fall, and the Federal Government has come to their relief in the purchase of non-marketable animals. In Garfield County the Government has paid the farmers \$55,000 for cattle and has purchased 4,000 head of sheep at \$2.00 per head, and in Pitkin County the Government purchase has been 200 head of cattle and 2,274 head of sheep. I am not advised as to the purchases in other counties of the Division.

I have not yet received the annual report from all the water commissioners, but as soon as these are in I will tabulate the same and forward to your office.

Notwithstanding the very serious conditions which have confronted us this season, we have come through the year with very little friction or trouble, thanks to the splendid co-operation of a crew of water commissioners who by reason of years of experience are familiar with the work and the duties required of them—a condition due very largely to our present Civil Service Law, which the people of this state had the good sense to retain when voting at the recent election.

Thanking you and your office force for many courtesies at your hands, I am

Very truly yours,

A. J. DICKSON,

Irrigation Division Engineer, Irrigation Division No. 5.

SUMMARY FOR DIVISION NO. 5 FOR 1934

	4	6	8	9	10	11
District No.	Amount of Appropriation Cu. Ft. Per Second	Length of Main Ditch in Miles	First Day Water Used from Natural Stream	Last Day Water Used from Natural Stream	No. of Days Water Carried from Natural Stream	Average Daily Amount of Water During Season (Cu. Per Sec.) from Natural Stream
37.....	1,120	272	May 15	Nov. 1	130	349
38.....	844	292	Apr. 1	Oct. 24	88	650
39.....	1,577	189	Mar. 20	Oct. 30	157	233
45.....	623	163	Mar. 3	Oct. 2	69	154
52.....	132	54	Mar. 25	Sept. 30	53	47
53.....	273	55	Apr. 15	Oct. 1	125	163
70.....	157	137	Mar. 1	Oct. 20	92	56
Totals.....	4,726	1,162			714	1,652

	12	13	14	15	16	17
District No.	No. of Acre-Feet Used by Canal for Season from Natural Stream	Total No. of Acres That Can Be Irrigated	Crops Irrigated from Canal in Acres			
			Alfalfa	Natural Grasses	Cereals	Orchards
37.....	91,021	22,652	9,290	4,609	3,067	....
38.....	162,153	31,685	18,038	5,420	5,742	6
39.....	51,796	11,395	9,622	3,673	2,597	585
45.....	23,288	16,966	15,749	5,159	4,903	480
52.....	8,019	10,510	1,950	2,366	377	....
53.....	40,632	3,800	3,835	7,685	325	....
70.....	10,288	15,542	5,886	75	671	69
Totals.....	387,197	112,550	64,370	28,987	17,682	1,140

SUMMARY FOR DIVISION NO. 5 FOR 1934

District No.	Crops Irrigated from Canal in Acres					
	11	19	20	21	22	23
	Market Gardens	Potatoes	Sugar Beets	Beans	Peas	Cabbage
37.....	246	1,295	....	....	210	....
38.....	...	3,404	....	....	....	....
39.....	62	1,275	1,872	41	....	....
45.....	40	345	411	15	....	....
52.....	...	32	....	....	....	....
53.....	...	180	....	....	....	30
70.....	59	226	69	115	124	18
Totals.....	407	6,757	2,352	171	334	48

District No.	24	25	26	27	28
	Other Crops	Total Irrigated	Superin- tendence	Repairs	Improve- ments
37.....	30	18,736	....	\$ 15,552	....
38.....	65	32,785	....	....	....
39.....	255	20,043	\$ 2,320	4,807	....
45.....	577	27,679	1,324	400	....
52.....	...	4,725	....	1,388	\$ 100
53.....	70	3,390	....	895	....
70.....	83	6,687	....	....	....
Totals.....	1,080	114,045	\$ 3,644	\$ 23,042	\$ 100

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 6 FOR 1933

November 27, 1933.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

In compliance with the provisions of the law, I have the honor to transmit herewith my report for Irrigation Division No. 6 for the year ending November 30, 1933.

We have just completed another season with general conditions at wide deviation from the normal.

There were practically no beneficial rains during the growing season, temperature throughout the growing season considerably above normal, heavier demand for irrigation water, increasing the duty of water, on account of higher temperature averages, excess winds, and extreme dryness of the soil. The snow deposits were below normal.

This condition resulted in an extreme shortage in the dry land crops and decreased tonnage in the irrigated crops. There is a marked decrease in the ground water supply the past three years, more noticeable the past year. Climatic conditions were ideal for the maturing and harvesting of crops.

This is the first season of record in this Division that irrigation water has been called for during late October and up into November for the purpose of wetting the soil for fall plowing. Also, water is still being applied to meadows in a number of instances.

The administration of irrigation water was more complicated this past season, due to the conditions as previously stated and the shortage of water in the streams during the irrigation season. This called for constant attention of the water commissioners and a closer measurement on all ditches. Junior priorities were shut down in several instances before their first irrigation had been completed. Complaints from users were about doubled, and the demand upon the Division Engineer's time correspondingly increased. All complaints were taken care of either by personal visit or correspondence, and an equitable adjustment made.

According to the snow scale readings made by the forest service, the snow deposits north and east of Steamboat were nearly normal, while the southern part of the Division had a marked shortage, which included most of the upper Yampa River and White River watersheds. The snow was loose and dry, density in water content very low. The general opinion was that there was more snow than was actually shown by the readings. This was probably due to the fact that it was so cold all winter that the snow

did not settle and consequently when warm weather did come it settled very quickly, and the heavy runoff covered a short period of time.

Following is a comparison of snow scale readings for past three years at some of the more important stations in the Routt National Forest:

Station	Snow Depth—Inches		
	1931	1932	1933
Dry Lake.....	41	78	55
Wheeler Creek.....	46	48	30
Morrison Creek	38	43	15
Lake Creek.....	31	45	40
Big Creek.....	42	70	55
Willow Creek.....	28	54	30
Little Bear	45	54	50
Independence Creek.....	48	77	48
Slater Creek.....	39	38	31

Quantity of rainfall and general occurrences of same during the growing season—The general occurrences and quantity of rainfall was beneficial to the irrigated crop, but insufficient in quantity and occurrences to be of any material aid to dry land farming.

The total precipitation for May was 2.07 inches at the Steamboat Springs station, the bulk of this occurring from the 1st to the 12th. The total precipitation for June was .45 of an inch, small scattered showers; July the same, with total of .87 of an inch. The rains occurring during June and July of no material benefit. Heavy rain on August 1st, and scattered showers throughout rest of month totaled 2.24 inches; September 11th to latter part there was a total of 2.24 inches. October only a trace. The August and September rains were too late to be of any advantage for the growing season. They did help, however, in the irrigated areas to the extent of easing up on the demand for irrigation water and the releasing of some of the water by prior rights for short intervals to help out some of the junior ditches. Reservoir storage was only partially taken care of through the winter and early spring runoff. The water commissioner's report from District 57 shows that out of the nineteen reservoirs in use in his District all were filled to capacity by May 1st excepting the Basin Reservoir, contained about 60% storage; the Sage Creek Reservoir, only about 20% storage; the J. C. Temple No. 1, about 20% storage; Emrich Reservoir, about 15%; the Morgan Creek about 30%, these being the largest reservoirs in District No. 57.

In District No. 58, out of thirteen reservoirs reported, all were filled to capacity with exception of the Gardner Park, about 20%

storage, and Kosho Lake, 50% storage, two of the largest reservoirs in District No. 58.

In Districts 43, 44 and 54, the storage percentage was somewhat improved, there being only a few reservoirs in each of these districts that are now being used for irrigation.

It has been previously reported that the reservoir water supplies are not nearly sufficient to make up for stream shortage. This fact can be more clearly illustrated by conditions on the upper Yampa River. There are adjudications made to twenty-eight ditches calling for a total of about 170 c. f. s. In any normal year this portion of the stream supplies only about 20% to 25% of this demand after July 1st, previous to that date there are thousands of acre-feet going to waste.

The same situation arises on many other streams in the Division, not only affecting one or a few, but groups of ditches on each stream, some of which have very early water rights.

The character of crops produced this year and the resulting effects of inadequate water supply as measured in tonnage and quality on a whole is below normal in tonnage, but the quality was not materially affected. The hay crop on an average is about 15% short, quality reported very good. Small grains probably 25% short under irrigation. The dry land crop runs about 75% short. Potatoes, vegetables, market garden, including lettuce, probably up to or even above normal in production and quality even better than the average.

Following is a brief report of lettuce and vegetable shipments from the Yampa section in District No. 58:

The records show that there were 161 straight carloads of lettuce and 16 mixed cars, totaling 177 cars. The mixed cars contained head lettuce, spinach, few carrots and few rutabagas.

The price for lettuce would average about \$1.00 per crate net to the grower. (Last year was 35c.) Spinach about 1½¢ per pound, carrots \$1.50 per crate, rutabagas 1c per pound.

The best estimate of truck hauling was about 10 cars of lettuce and 4 cars of spinach. It was a fairly successful year for the growers; it is expected the acreage next year will be considerably more than the past year. It is estimated the crop brought in about \$75,000 to the District besides about \$4,000 paid for ice and \$10,000 for labor.

During the year 1933 to date, there have been 30 cars of baled hay shipped from the Yampa District, with orders on hand that by the end of the year the total hay shipment will be about 50 cars. The cars would average 13 tons per car and about \$13.00 per ton f. o. b. Denver, or about \$5.50 net to the grower after all expenses deducted. This would give to the grower about \$20 per acre net on his hay acreage. The hay quarantine area in District No. 58 ties up about 50% of this crop in the District from shipment, averaging approximately 80,000 tons. The hay in this area is nearly all fed locally and is not wasted. The hay crop alone (timothy and

clover) in District No. 58 on the above basis is worth around \$900,000 net to the growers, consumed either by local feeding or shipment.

The same average will apply to other districts in the Division with respect to hay acreage.

This fall there has been a noticeable activity among ditch and reservoir owners to repair and place their systems in better shape. This office has been kept busy during October and November lending assistance to the water users in this respect, helping them to figure out and overcome their difficulties, and I believe a very conservative estimate would place this work 100% above the average.

The past season there were twenty-five additional Parshall measuring flumes of various sizes placed in ditches in District No. 58, three in District No. 57, five in District No. 43, seven in District No. 44, and two in District No. 54, making a total of forty-two flumes installed during the season—one to six-foot sizes. Eight new headgates were placed in District No. 58, two in District No. 54, five in District No. 44, and four in District No. 57. These flumes and headgates were all built of not less than two-inch lumber, and conformed to the requirements of the State Engineer's office. All the above devices were placed under supervision of the water commissioners and inspected and approved by the Division Engineer.

There were 1,500 cubic yards of earth placed on the Kosho Lake dam this spring and about another 1,500 cubic yards will complete this dam to the specifications; gage rod was also placed therein.

The Hughes Chapman Reservoir, District No. 58, succeeded in draining their reservoir this fall, and will place new outlet gate and operating device which will put the reservoir in shape for use next season, and has storage capacity of 455 acre-feet. The McKinley No. 1 and No. 2 ditches in District No. 57 are being entirely rebuilt and enlarged at an expense of about \$10,000. These ditches have a combined adjudication of 20 c. f. s. of an early priority right and irrigate about 1,400 acres, although have not been used the past several years.

Following is tabulation of total acreage irrigated under ditches the past five years in four districts:

Dist. No.	1929	1930	1931	1932	1933	
43	37,196	33,893	34,068	33,081	31,850	Decrease
44	21,727	19,283	21,454	25,826	27,463	Increase
57	12,243	11,783	12,199	11,320	12,402	Increase
58	41,116	41,862	48,105	39,442	47,593	Increase
Totals	112,282	106,821	115,826	109,669	119,308	Increase

1929 was considered an exceptionally good year, both as to water supply and outlook for crop disposal.

1930 was subnormal water supply and market conditions. Decrease in number of livestock, prices, etc., which materially reduced the total acreage irrigated.

1931, 1932 and 1933, being three consecutive years of sub-normal water supply, commencing with 1931 the lowest runoff of record, and following very closely the same conditions in 1932 and 1933. And considering the past three years as being the most trying times for farmers to get by, and the general discouraging conditions of the marketing of crops, livestock disposal, etc., the acreage irrigated has increased since 1930 and the 1933 acreage even exceeding that of 1929, when conditions generally were good.

Hydrographic Data.

Measurements of stream flow and discharge computations were made through the year on the Yampa River at Steamboat Springs and Maybell, the White River at Meeker and Watson, Utah, Little Snake River at Lily Park, Elk River at Clark, and Slater Creek at Slater. All hydrographic data is being prepared and submitted separate from this report. The necessary repairs and maintenance of these several gaging stations was taken care of.

Administration.

This office has been called upon frequently during the season to settle difficulties, and a number of rulings and orders were necessarily issued with respect to certain priority rights and the administration of the water by the water commissioners.

Administration of decrees in District No. 54, out of Little Snake River, along the Colorado-Wyoming line, reached a climax this season when a demand was made on this office in July for service on the Heeley ditch decree. No water commissioner has been appointed for the above district, and the water commissioner in Wyoming had made adjustments along the river according to his records in which he cut down the Heeley ditch, headgate in Colorado, to supply a prior right, according to his records, of the Brush ditch, headgate in Wyoming. Both ditches have adjudicated water rights in the Wyoming decrees as follows: The Brush ditch, heading on the Wyoming side, gives priority date of March 28, 1885, for 4.85 c. f. s. The Heeley ditch, heading in Colorado, given priority date of June 6, 1902, for 7.44 c. f. s. (Wyoming decrees). The Brush Ditch is not adjudicated by Colorado decree. The Heeley ditch, however, was adjudicated in the 1909 term of the District Court of Routt County and given a priority date of April 15, 1898, for 9 1/12 c. f. s., being four years earlier in date and an increase of a couple of feet more water, the difference in the latter being of course the different amount of water allowed per acre in each state. (District No. 54, one c. f. s. for 60 acres; Wyoming one c. f. s. for 50 acres.) The discrepancy in priority dates of the Heeley decrees as between the states, place some other ditches in Wyoming prior to the Heeley decree that would otherwise be junior to the same if the Colorado priority date were used, one being the Wyoming decree to the Woodbury ditch.

This is presumed to be the reason that demand was made by the Heeley ditch for service on the Colorado decree.

A portion of the land irrigated under the Heeley ditch lies in Colorado, the balance being in Wyoming.

Another ditch similar to the Heeley ditch is the Woodbury ditch as above mentioned. This ditch has a decree in both states as follows:

Wyoming—January 31, 1900—for 2.78 c. f. s.

Colorado—May 27, 1895—for 6.98 c. f. s.

As near as can be determined without actual survey, they are one and the same ditch, headgate in Colorado, and irrigating lands on both sides of the State line.

Permits have been issued by the State of Wyoming to water users in Colorado, under the West Side Canal, a Wyoming ditch, to irrigate about 1,500 acres in Colorado.

An attempt was made to determine any other or all ditches along the State line interchanging or irrigating lands in both states and as to headgate locations, etc. This, however, is impossible without an actual survey, showing location of the river in respect to state line. The earlier records are so conflicting that no two surveys of ditch locations or plats show the same locations of the river channel or state line in connection therewith.

Action was deferred by this office on the Heeley ditch demand made in August, as an investigation disclosed there was no water available at the time for even more senior rights, and the matter was presented to your office and in return referred to the Attorney General's office for an opinion. Having in mind Section 1619 of the Compiled Laws of 1921, no definite stand is necessary at this time, but it must be determined what action to take before the irrigation season next year.

This involves two questions in particular:

First: Does the above Statute referred to affect a decree granted prior to the enactment of that Statute?

Second: Even though the Wyoming water commissioner may be in control of a Wyoming decree to the Heeley ditch (which has headgate in Colorado and irrigates land in both states), has he any right to come across the line into Colorado and interfere with the diversion of water to that ditch in violation of the Colorado decree? We are powerless under the present situation and arrangement to supply any water to the Heeley or other Colorado decrees similarly situated or located on the Snake River; by shutting down junior decrees in Colorado on the upper Snake River or tributaries, such water released would be absorbed by Wyoming ditches before the river returns again into Colorado.

Complete annual ditch and reservoir reports from the water commissioners actively engaged have been received and the customary tabulation thereof is attached hereto.

Respectfully,

B. T. CHASE,

Irrigation Division Engineer, Division No. 6.

TABULATED STATEMENT OF WATER COMMISSIONERS.
ANNUAL DITCH REPORT FOR THE IRRIGATION SEASON OF 1933.

District No.	Number of Priorities	Number of Ditches Reported As Used	Amount of Appropriation Second Feet
43	268	268	899.90
44	198	125	518
54	115	No Water Commissioner	
55	5	No Water Commissioner	
56	14	No Water Commissioner	
57	75	51	421.54
58	316	288	1,181.80
Totals	991	732	3,021.24

District No.	Capacity of Ditches Sec. Ft.	Length of Main Ditch in Miles	Length of Laterals in Miles	First Day Water Was Used	Last Day Water Was Used
43	2,031	388	33	3-1	10-1
44	707	338	241	5-15	10-30
54 .....	...	...	...	...	...
55 .....	...	...	...	...	...
56 .....	...	...	...	...	...
57	519	195	...	4-20	10-28
58	1,720	429	...	4-15	11-1
Totals...	4,977	1,350	274	3-1	11-1

District No.	Average No. of Days Water Was Carried	Average Daily Amount Carried in Second Feet	No. of Acre-feet Used
43	55	875.04	191,947
44	45	368	35,628
54 .....	..	.....	.....
55 .....	..	.....	.....
56 .....	..	.....	.....
57	77	177.91	28,857
58	121	774.19	196,202
Totals	74	2,195.14	452,634

TABULATED STATEMENT OF WATER COMMISSIONERS.
ANNUAL DITCH REPORT FOR THE IRRIGATION SEASON OF 1933.

District No.	Number of Acres That Can Be Irrigated		Natural Grass Timothy and Clover		Orchard Berries
		Alfalfa		Cereals	
43	41,630	17,102	10,187	3,450	..
44	29,364	17,434	6,045	2,435	10
54 .....	.....	.....	.....	.....	..
55 .....	.....	.....	.....	.....	..
56 .....	.....	.....	.....	.....	..
57	18,533	859	11,501	39	..
58	62,590	.....	44,856	10	77
Totals	152,117	35,395	72,589	5,934	87

District No.	Market Garden and Head Lettuce		Potatoes	Sugar Beets		Peas
				Beans		
43 .....	.....	.....	.....	..	..	..
44	3	1,340	1	..	..	..
54 .....	.....	.....	..	..	..	..
55 .....	.....	.....	..	..	..	..
56 .....	.....	.....	..	..	..	..
57	1	2	..	..	..	..
58	2,250	385	..	..	15	15
Totals	2,254	1,727	1	..	15	15

District No.	Other Crops	Total Irrigated	Superin- tendence	Repairs	Improve- ments
43	1,111	31,850	\$3,960.00	\$ 6,644.00	\$1,933.00
44	195	27,463	.....	3,957.00	761.00
54 .....	.....	.....	.....	.....	.....
55 .....	.....	.....	.....	.....	.....
56 .....	.....	.....	.....	.....	.....
57 .....	.....	12,402	.....	150.00	990.00
58 .....	.....	47,593	.....	8,850.00	1,369.00
Totals	1,306	119,308	\$3,960.00	\$19,601.00	\$5,053.00

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL
RESERVOIR REPORTS FOR IRRIGATION SEASON OF 1933

District No.	Number of Adjudicated Reservoirs	No. of Reservoirs Used and Reported Herein Complete Data	Area of High Water Line—Acres	Total Capacity Cubic Feet
43	10	8	160	52,511,912
44	14	10	195	80,912,293
54	4	No Water Commissioner		.....
55	0	No Water Commissioner		.....
56	1	No Water Commissioner		.....
57	30	20	419	168,031,256
58	44	25	575	118,028,840
Totals	103	63	1,349	419,484,301

District No.	Quantity of Water in Reservoirs May 1st, Cubic Feet	Quantity of Water in Reservoirs Nov. 1st, Cubic Feet	First Day Water Was Used	Last Day Water Was Used
43	47,879,944	2,134,440	4-28	8-10
44	41,872,583	23,455,426	6-4	9-10
54 .....	.....	.....	....	....
55 .....	.....	.....	....	....
56 .....	.....	.....	....	....
57	57,541,997	1,827,856	5-20	10-26
58	47,853,042	12,404,105	6-15	9-4
Totals	195,147,566	39,821,827	4-28	10-26

District No.	Average No. of Days Water Was Carried	Average Daily Amount Carried Cubic Feet	No. of Acre Feet Reservoir Water Carried
43	27	15.99	752
44	44	18.50	1,973
54 .....	..	....	....
55 .....	..	....	....
56 .....	..	....	....
57	14	13.75	1,537
58	9	26.25	991
Totals	94	74.49	5,253

District No.	Alfalfa	Cereals	Potatoes	Natural Grasses Timothy & Clover
43	All Reservoirs Used to Supplement			Ditch Flow
44	797	50	5	819
54 .....	..	..	..	....
55 .....	..	..	..	....
56 .....	..	..	..	....
57	265	..	..	580
58 .....	..	100	25	2,435
Totals	1,062	150	30	3,834

TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL
RESERVOIR REPORTS FOR IRRIGATION SEASON OF 1933.

District No.	Lettuce and Vegetables	Other Crops	Total Irrigated	Repairs	Improvements
43
44	10	1,681	.....	.....
54
55
56
57	845	.....	\$ 50.00
58 290	2,850	\$1,470	1,500.00
Totals	290	10	5,376	\$1,470	\$1,550.00

District No.	Remarks
43	All acreage irrigated reported on ditch report. Evacuation Lake and Lunny Reservoir filled twice. Storage of 174 acre-feet.
44	Storage in several of these reservoirs supplemented during the season, which accounts for large amount in storage November 1st.
54	Reservoirs used to supplement direct flow irrigation. Only two reservoirs used during season this District. No detailed data.
55	Only one small reservoir in District No. 56 used to supplement irrigation on about 200 acres natural grass. No detailed data.
56	No reservoirs in District No. 56.
57	A number of these reservoirs were used this season for the irrigation of pasture only.
58	Large acreage under these reservoirs reported under ditches on ditch report.

There is only one reservoir in the Division of 1,000 or more acre-feet capacity. The Gardner Park Reservoir, District No. 58, has storage capacity of 1,155 acre-feet. There were no monthly gage readings made thereon this year by the water commissioner. This reservoir stored to about one-half capacity by June 1st and was emptied during the irrigation season.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 6 FOR 1934

November 30, 1934.

M. C. Hinderlider,
State Engineer,
Denver, Colorado.

Dear Sir:

I herewith submit to you my annual report for Irrigation Division No. 6 for the year ending November 30, 1934.

This season has been the most remarkable and trying with which the irrigationists of this Division have had to contend from the standpoint of insufficient water supply, subnormal rainfall and above-normal temperatures.

The water was being diverted for direct irrigation in some ditches as late as November 30th. The latest average direct application of water this year (all ditches where water was available) was up to and including the week of October 15th, being thirty to forty-five days later use than the average year.

The first use of water for direct irrigation was reported during the week of March 10th. The average general demand started the first week of April, this being an average of thirty days earlier than the normal season.

Owing to anticipated shortage both for direct irrigation and storage and the early dry condition of the soil, orders were issued to supply all decreed demands for direct irrigation before permitting storage, which brought in a number of complaints. Careful study was made of each complaint to see that the water demanded was needed and beneficially applied. This same condition was a source of contention and irritation this fall, being as previously stated a condition with which we have had very little trouble.

To my knowledge this is the only year when water was not available for storage during the spring runoff or at some time during the irrigation season.

At the beginning of the irrigation season it was necessary to start shutting down junior appropriators to supply senior rights. A number of such ditches received no water at all during the year.

The first week in April all ditches on Willow Creek, District No. 54, were shut down to supply first priority. The same on Marapos, Deer Creek and Milk Creek in District No. 44.

During the week of May 15th to 23rd all ditches were shut down to supply first and second priorities on Fortification and Elk Head Creeks, District No. 44. Deep Creek, District No. 58, cut to last three priorities, Hunt Creek, Watson Creek and Oak Creek supplying only first and second priorities.

None of the mentioned tributaries as well as numerous other small streams gained sufficient flow to give any relief to the junior ditches.

The soil was quite dry in some parts of the irrigation area early in March and almost a total lack of rainfall during the growing season, together with excess in temperature, retarded crops throughout the Division, with almost a complete loss of dry farm crops in some sections to as low as a 50% loss in some irrigated crops. Hay meadows under junior ditches which received no water during the season were used only for pasture.

Discharge of the Yampa River at Steamboat Springs on July 16th was 11 c. f. s., Yampa River at Craig, 5 c. f. s. and at Maybell, 2 c. f. s. At this time the Yampa River was receiving no visible supply from tributaries, with exception of Elk River, which was flowing 23 c. f. s. at Brookston. All water in Yampa River above the Elk River was seepage and return water.

Orders were issued July 21, 1934, to Water Commissioners in Districts Nos. 44, 57 and 58 to close all ditches diverting water from Yampa and Elk Rivers and tributaries with priorities junior to 1888 ditches of the general decree of 1892. This resulted in a gain of approximately 75 c. f. s. in Elk River. Discharge to supply priorities in Districts Nos. 44 and 57 and relieved the situation considerably in these districts.

The following graph will illustrate the situation in the spring with respect to snowfall. An average was taken of ten snow scale stations on the Yampa River drainage by Forest Service in 1920. The average reading for end of March less than 57% of past 15 years. Only one scale showed reading at end of April. The average for April was less than 1½% of the normal for the past 15 years at all of these stations. Only a few patches of snow showed slightly near the stations, north slope slight increase, very few drifts.

The water supply for towns was extremely short the past season. Steamboat Springs had to rely entirely upon water stored in the Long Lake Reservoir for 90 days.

Town of Oak Creek received about 25% of its usual consumption from June 1st to November 1st.

Both Hayden and Craig depend upon the natural flow of the Yampa River, which was low from July 1st to August 1st.

Demand was made on this office by each of the above-mentioned towns to give them relief on the water supply. There was nothing that could be done in this respect excepting cutting off junior appropriators on the Elk and Yampa Rivers; this relieved the situation in regard to Hayden and Craig.

The inadequate water supply as a whole was a serious matter to crop shrinkage and decrease in tonnage. With but a few excep-

tions the crops produced were far below normal in tonnage with a wide spread of total loss to crops where no water was available for the entire season.

The percentage of water stored in the several reservoirs on May 1st was as follows:

District No. 43.....	34%
District No. 44.....	48%
District No. 54.....	58%
District No. 57.....	17%
District No. 58.....	40%

The average amount stored in reservoirs in Division No. 6 on May 1st was 30%, with no water available for storage after May 1st.

The estimated shortage of water the past season to ditches necessary to properly irrigate crops is 106,000 acre-feet outside of miscellaneous ditches on a number of small streams.

Irrigators in the Division are badly in need of storage on a larger scale, for existing ditches and as a supplemental flow thereto, usually from about July 10th to September 1st.

A tabulation of the requirements by streams is as follows:

Name of Stream	Need Additional Storage
Yampa River Ditches	10,000 acre-feet
Hunt Creek	1,500 acre-feet
Oak Creek	2,000 acre-feet
Walton Creek.....	1,800 acre-feet
Trout Creek	2,000 acre-feet
Deep Creek	1,200 acre-feet
Elk Head Creek.....	3,500 acre-feet
Fortification Creek.....	3,000 acre-feet
Marapos Creek.....	1,200 acre-feet
Milk Creek.....	1,600 acre-feet
Little Smoke River Ditches.....	4,800 acre-feet
Total	32,600 acre-feet

The total present storage capacity of existing reservoirs is approximately 9,500 acre-feet, the majority of which is used independently from direct flow priorities, and are also individually owned and operated for small tracts over a scattered area. None of the present reservoirs are so located that they can store the runoff of the more prominent streams.

The administration problems the past season, while numerous and of wide variation, were held within control by the water officials without resorting to the courts.

Three trips were made for purpose of administration measurements, to ditches on Troublesome Creek, District No. 50, Division No. 5. Four trips were made for administration purposes on Pass Creek, same water District, in connection with Pass Creek Reservoir.

Hydrographic measurements of stream flow were carried on through the year on the Yampa River at Steamboat Springs and Maybell, Elk River at Clark, Slater Creek at Slater and Little Snake River at Lily Park.

Aside from the necessary maintenance of existing reservoir systems, there has been no development nor improvement during the past year except the completion of the dam and other work of the Simon Mutual Reservoir, District No. 50 (known as Kosho Lake). This reservoir as now completed will store 1,105 acre-feet of water.

Attached hereto are tabulated statements of Water Commissioners' ditch and reservoir reports.

Yours very truly,

B. T. CHASE,

Irrigation Division Engineer, Division No. 6.

**TABULATED STATEMENT OF WATER COMMISSIONER'S ANNUAL
DITCH REPORTS FOR THE IRRIGATION SEASON OF 1934
IRRIGATION DIVISION NO. 6**

Dist. No.	No. of Ditches Reported	Amount of Appropriation Second Feet	Capacity of Canals Second Feet	Length of Main Ditches In Miles	First Day Water Was Used	Last Day Water Was Used
43	249	861.21	1,925.16	372.55	3-10	10-15
44	94	581.71	670.29	375.50	4-10	10-31
54	43	224.65	153.00	83.25	4-1	8-15
55	No Water Commissioners for these Districts—only 17 ditches in both districts					
56						
57	73	348.88	521.00	141.00	3-10	10-26
58	278	1,180.32	1,725.00	450.00	3-20	10-30
Totals	737	3,196.77	4,994.45	1,422.30	3-10	10-31

Dist. No.	Average Days Water Was Carried	Average Daily Amount Carried Second Feet	No. of Acre Feet Used	Total Acres That Can Be Irrigated	Alfalfa	Natural Grass Timothy and Clover
43	43	789.33	99,872	40,475	14,670	9,261
44	48	296.50	26,354	22,574	8,460	8,403
54	67	81.67	11,134	6,908	770	4,155
55 and 56	No Report					
57	78	166.06	46,524	16,579	814	11,800
58	85	559.66	119,308	59,883	....	43,272
Totals	64	1,893.22	303,192	146,419	24,714	76,891

Dist. No.	Cereals	Orchards and Berries	Market Garden Head Lettuce and Vegetables	Potatoes	Sugar Beets	Peas	Other Crops	Total Irrigated	Superintendence
43	2,945	..	...	..	..	..	255	27,133	\$4,124.00
44	1,965	10	3	82	2	..	192	19,117	.....
54	80	..	....	27	..	..	...	5,032	.....
55	No Report								
56	No Report								
57 .....	...	..	....	...	..	..	...	12,614	.....
58	1,049	77	1,238	405	..	15	...	46,056	.....
Totals	6,039	87	1,241	514	2	15	447	109,950	\$4,124.00

ANNUAL RESERVOIR REPORT, IRRIGATION DIVISION NO. 6

Dist. No.	Repairs	Improvements	No. of Reservoirs in Use	Area of High Water Line, Acres	Capacity in Cubic Feet	Quantity of Water in Reservoirs, May 1st, Cu. Ft.
43	\$ 6,364.00	\$1,730.00	5	41.67	17,870,127	6,147,913
44	4,873.00	811.00	14	195	80,412,293	38,831,684
54	3,255.00	.....	2	65	20,522,232	11,950,932
55	No Water Commissioners for these two Districts—only one small reservoir contained therein					
56						
57	655.00	.....	16	403	168,130,254	28,236,979
58	3,915.00	1,395.00	24	589	116,576,389	46,678,382
Totals	\$19,062.00	\$3,936.00	61	1,293.67	403,511,295	131,845,890

Dist. No.	Quantity of Water in Reservoirs Nov. 1, Cu. Ft.	First Day Water Used	Last Day Water Was Used	Average Days Water Was Carried	Average Daily Amount of Water Carried Second Feet	No. Acre Feet Reservoir Water Carried	Alfalfa
43	323,941	4-9	5-23	8	11.32	131.06	200
44	14,059,926	6-4	9-10	11	19.50	453	707
54	0	6-1	7-15	40	4.25	232.5	...
55	No Report	..	...	..	....	.....	...
56	No Report	..	...	..	....	.....	...
57	0	4-11	7-25	19	7.41	341.3	350
58	606,145	6-9	9-14	10.5	23.50	949	...
Totals	14,990,012	4-9	9-14	18	65.98	2,157	1,257

Dist. No.	Natural Grass	Cereals	Market Garden	Other Crops	Total Irrigated	Repairs	Improvements	Potatoes
43 .....	.....	20	.....	...	220	.....	.....	..
44	819	..	.....	10	1,536	.....	.....	..
54	220	..	.....	..	221	\$ 200	\$1,500	1
55	No Report	..	.....	..	...	.....	.....	..
56	No Report	..	.....	..	...	.....	.....	..
57	240	..	.....	..	590	.....	.....	..
58	910	50	216	10	1,186	1,100	450	10
Totals	2,189	70	216	20	3,752	\$1,300	\$1,950	11

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER
OF IRRIGATION DIVISION NO. 7 FOR 1933

Durango, Colorado, November 22, 1933.

M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

This is to submit the annual report for 1933 covering administration, hydrographic data and the tabulated statements of water commissioners' ditch and reservoir reports.

Administration

Aside from the administration of the La Plata River Compact, of which there is a separate report, there were no serious problems nor dissensions in respect to the distribution of water in accordance with the decrees. The preliminary decree on Pine River in water District No. 31 has been made. It is expected that the final decree will be completed before the season of 1934.

Hydrographic Data

Measurements and records of stream flow and of canal diversions were made and rating tables furnished the several water commissioners in their respective districts.

Records of flow and measurements were also made on several streams on which there is no problem of distribution in order to have a record of water supply.

Activities

Three Parshall measuring flumes of timber construction were installed on canals in Districts 33 and 34. Headgates were repaired on ditches in all districts where the same were deemed necessary by the water commissioners. Only the most necessary repairs and improvements were ordered because of the continued financial straits of the farmers.

Considerable aid was given the water users in their efforts to secure construction of reservoirs on the La Plata, Pine River and Beaver Creek. Stream flow data were furnished and water supply reports prepared relative to the several projects.

The La Plata Reservoir Project has probably been definitely rejected by the Public Works Board or other Government agencies. The Beaver Creek Reservoir Project, which if built will supply additional water for Montezuma Valley, has not been pressed for consideration by the Public Works Board.

The Pine River Reservoir Project is at this time being presented to the P. W. A. by a representative of the white water users and by the Commissioner of Indian Affairs at Washington, D. C. It is proposed to build an earth and rock fill dam on Pine River about fifteen miles upstream from Bayfield and about one mile below the confluence of Pine and Vallecito Rivers. The capacity at 110 feet above the bed of stream is estimated at 103,000 acre-feet and the cost at \$2,225,000. Plans and estimates have been made by the Reclamation Bureau and the Indian Bureau Engineers.

Water Supply

The amount of water in storage on May 1st was 22,000 acre-feet or 62 per cent of capacity of the present storage facilities, which are entirely insufficient to furnish supplemental water to the present irrigated acreage.

Snowfall in the elevated regions of the San Juan and Dolores River basins on March 31st was reported by the U. S. Weather Bureau at 77 per cent of normal.

The following table of precipitation as measured at four stations in the San Juan Basin shows that from November 1, 1932, to March 31, 1933, the snowfall was 64 per cent of normal:

Month	Precipitation Inches	Departure from Normal	Per Cent of Normal
November	0.12	—1.10	10
December	1.73	+0.27	118
January	1.39	—0.24	87
February	0.93	—0.63	60
March	0.81	—1.08	43
Total	4.98	—2.78	64

The deficiency of moisture continued until the eighth of September, when general rains occurred. August was the eighth consecutive month of deficient precipitation. The mean deficiency from January to August, inclusive, was 27 per cent.

The mean precipitation at four stations from April to September is given by the following table:

Month	Precipitation Inches	Departure from Normal	Per Cent of Normal
April	1.23	—0.25	83
May	0.54	—0.50	52
June	1.00	—0.04	96
July	2.14	—0.39	85
August	1.68	—0.84	67
September	2.57	+0.50	124
Totals	9.16	—1.52	84

During the spring months or early part of the growing season the temperature was also approximately four degrees below normal. During the summer months the mean temperature was slightly in excess of normal, as shown by following table:

MEAN MONTHLY TEMPERATURE AT THREE STATIONS IN IRRIGATED SECTION

	Month					
	April	May	June	July	Aug.	Sept.
Departure from normal, degrees..	-3.5	-3.8	+1.3	+0.6	-0.2	+2.5

The cold spring was favorable in respect to stream runoff, as the water from melting snow was held back until later than usual. The following is table of runoff in acre-feet as compared with average:

YEARLY RUNOFF IN ACRE-FEET

Stream	Mean	1933	Per Cent of Mean
Anlmas	690,000	432,000	63
Dolores	339,000	213,000	63
Florida	97,800	51,500	53
La Plata	37,800	21,800	58
Pine	283,000	195,000	69
Totals	1,447,600	913,300	63

It is interesting to note that the yearly runoff at 63 per cent of the average agrees practically with winter precipitation factor of 64 per cent.

Extreme Low Daily Flow

The lowest daily flow in second feet during the irrigation season was less in some streams than the low flow during the 1931 season, which is shown by the following table:

MINIMUM DAILY FLOW IN SECOND FEET

Stream	May		June		July		August		September	
	1931	1933	1931	1933	1931	1933	1931	1933	1931	1933
Dolores	384	296	228	443	67	176	23	56	23	43
Florida	57	30	81	139	28	40	20	17	25	10
Mancos .....	..	38	..	64	..	16	..	4	..	2
La Plata	31	28	30	24	12	17	7	7	6	6
Pine	295	171	459	543	153	169	85	119	96	93

The effect of such extreme low flow was reflected most in the short second crops of hay and in range and pasture conditions. Many herds of livestock were removed from the summer ranges to the lower ranges in August on account of short pasture and lack of water.

Crop Production

Severe damage occurred to orchards from the extreme winter cold. Many trees were winter killed. Killing frosts also occurred late in the spring which damaged the fruit crop.

Cereal crops were generally good and above the average in yield. Hay crops were short, as the water supply was not sufficient to mature second crops except under storage.

Respectfully,

J. R. WILLIAMS,
Division Engineer.

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH
REPORTS FOR THE IRRIGATION SEASON OF 1933

Dist. No.	Number Ditches Reported	Number of Priorities	Amount Appropriated Cu. Ft.	Capacity of Canals Cu. Ft.	Length of Canals (Miles)
29 .....	...	*220	*530	...	...
30	171	228	590	730	210
31 .....	...	...	...	...	...
32 .....	...	...	...	...	...
33	40	46	591	397	56
34	60	64	1,786	1,058	125
69	15	14	32	58	20
Totals	286	572	3,529	2,243	411

Dist. No.	First Day Water Was Used	Last Day Water Was Used	Maximum No. Days Water Was Used	Average No. Days Water Was Used	Average Daily Amt. Delivered in Sec. Ft.	No. Acre-Ft. Used from Natural Streams
29 .....	...	...	...	125	300	*75,000
30	Apr. 1	Nov. 15	229	126	386	97,393
31 .....	...	...	...	135	448	*121,000
32 .....	...	...	...	140	32	*9,000
33	Apr. 8	Oct. 18	164	60	161	19,349
34	Apr. 16	Sept. 30	165	112	566	126,880
69	Apr. 18	Sept. 18	146	71	30	4,188
Totals	Apr. 1	Nov. 15	229	118	1,923	452,810

Dist. No.	No. Acres That Can Be Irrigated	Crops Irrigated				
		Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens
29	*43,000	...	...	...	...	...
30	58,443	11,473	5,017	9,379	724	43
31	*124,000	...	...	...	...	...
32	*70,000	...	...	...	...	...
33	45,000	7,115	...	4,265	138	2
34	53,000	14,584	6,200	13,050	1,118	...
69	1,975	845	248	126	24	5
Totals	395,418	34,017	11,465	26,820	2,004	50

*Estimated by Irrigation Division Engineer.

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH
REPORTS FOR THE IRRIGATION SEASON OF 1933

Dist. No.				Total No. Acres Irrigated	Cost, Dollars		
	Potatoes	Beans	Other Crops		Superin- tendence	Repairs	Improve- ments
29 .....	...	...	...	*25,000	....	....	....
30	676	10	300	27,622	\$3,475	\$12,348	\$3,400
31 .....	...	...	...	*47,000	....	....	....
32 .....	...	...	...	*3,000	....	....	....
33	615	181	465	†13,181	550	295	270
34	2,554	...	2,900	40,406	3,000	....	....
69 .....	...	...	347	1,595	....	685	20
Totals	3,845	191	4,012	157,804	\$7,025	\$13,328	\$3,690

Dist. No.	Number Reservoirs in District	Area of High Water Line (Acres)	Capacity in Cu. Ft.	Quantity of Water in Storage on May 1st, Cu. Ft.	Quantity of Water in Storage on November 1st, Cu. Ft.
30	3	899	1,089,238,410	528,690,240	946,517,760
33	1	37	25,090,560	25,090,560	0
34	5	909	432,009,388	405,994,688	7,278,530
Totals	9	1,875	1,546,338,358	959,775,488	953,796,290

Dist. No.	First Day Water Was Used	Last Day Water Was Used	No. Days Water Was Used from Storage	Average Daily Amount Used (Sec. Ft.)	Number Acre-ft. Used	No. Acres Irrigated
30	*May 18	*Sept. 30	30 (365)	39.1	17,827	3,805
33	June 19	Oct. 1	44	7.2	633	398
34	Apr. 15	Sept. 15	138	75	20,795	7,350
Totals	Apr. 15	Oct. 1	*138 (365)	54	39,255	11,553

COST, DOLLARS

District No.	Superintendence	Repairs	Improvements
30	1,000	3,418	None Reported
33	50	....	None Reported
34	2,750	....	None Reported
Totals	3,800	3,418	None Reported

*Estimated by Irrigation Division Engineer.

†Includes 400 acres irrigated under seepage ditches not included in ditch report.

NOTE: *Dates and number of days water was used for irrigation. Water was used for power development for 365 days.

ANNUAL REPORT OF IRRIGATION DIVISION ENGINEER OF IRRIGATION DIVISION NO. 7 FOR 1934

Durango, Colorado, January 28, 1935.

M. C. Hinderlider,
State Engineer,
Capitol Building,
Denver, Colorado.

Dear Sir:

Herewith is the Annual Report for 1934. Such report covers the administration of water rights, stream flow data and the tabulations of water commissioners' annual ditch and reservoir reports, as follows:

Water Supply

The natural flow of all the streams in the San Juan and Dolores River basins was decidedly the lowest in 1934 of any year for which we have any record. The following are tables of runoff of some streams during the past year as compared with the mean flow in acre-feet.

ANIMAS RIVER AT DURANGO

	April	May	June	July	Aug.	Sept.	Total
Mean, 35 years.....	61,800	165,000	194,000	81,400	41,100	34,900	578,200
1934	43,100	75,000	23,500	13,000	12,700	13,200	180,500
Per Cent of Mean..	70	45	12	16	31	38	31

Total for year 250,500, mean 690,000, 1934 per cent of mean 36.

PINE RIVER NEAR BAYFIELD

	April	May	June	July	Aug.	Sept.	Total
Mean, 7 years.....	21,200	57,800	68,100	27,900	21,100	14,800	210,900
1934	27,000	31,900	9,850	4,790	7,240	9,420	90,200
Per Cent of Mean..	127	55	14	17	34	62	43

Total for year 123,400, mean 250,000, 1934 per cent of mean 49.

DOLORES RIVER AT DOLORES

	April	May	June	July	Aug.	Sept.	Total
Mean, 23 years.....	51,000	121,000	83,500	25,700	13,200	12,800	307,200
1934	28,100	34,900	6,430	3,410	3,190	2,510	78,540
Per Cent of Mean..	55	29	8	13	24	20	25

Total for year 102,000, mean 339,000, 1934 per cent of mean 30.

LA PLATA RIVER AT HESPERUS

	April	May	June	July	Aug.	Sept.	Total
Mean, 18 years.....	5,320	12,200	9,280	2,350	1,670	1,480	32,300
1934	3,800	3,190	946	627	627	613	9,803
Per Cent of Mean..	71	26	10	27	37	41	30

Total for year 13,500, mean 36,050, 1934 per cent of mean 37.5.

It should be noted that the month of June was the lowest in per cent of mean flow.

The lowest daily flow which occurred during the season was: On La Plata, 4 second feet, Dolores 25, Mancos 2, Pine 71, Animas 170. The same occurring on all streams about the middle of September, but with low daily flow in July and August which approximated the extreme low.

It seems from the records that Pine River is the best natural stream in this Division, since the flow held for the year at 49 per cent of the average. That point is also apparent from the following table of runoff in acre-feet per square mile of drainage area:

Stream	Runoff in Acre-ft.	Drainage Area Square Miles	Runoff per Sq. Mi.	Altitude Gaging Sta.
Dolores	102,000	524	195	6,954
Animas	250,000	694	361	6,550
Pine	123,000	284	435	7,500

Water in Storage

At the beginning of the season of irrigation the amount of water in storage was: In District 30, 63%; District 31 (Emerald Lake), 100%; District 33 (Red Mesa), 37%; District 34, 99%.

Some of the small reservoirs near Mancos were about 50 per cent full, but the capacity is too small to make any difference on the total. Since the total capacity of storage for irrigation in this Division is only 15,600 acre-feet, it is increasingly apparent that additional storage must be provided if the present irrigated and irrigable lands are ever to reach and maintain a state of stable productivity.

Precipitation

Rain and snowfall was deficient for the entire year. Records kept by the Western Colorado Power Co. of the rain and snowfall on the Animas watershed at Cascade show that the total for 1934 was 11.04 inches or 38 per cent of the mean for twenty-eight years. The per cent of normal precipitation corresponds closely with the 36 per cent runoff at Durango.

TABLE OF PRECIPITATION AT CASCADE

Years	No. Years	Maximum Amount	Year	Minimum Amount	Year	Mean
1907-16.....	10	55.94	1911	28.65	1913	38.68
1917-34.....	18	32.92	1927	15.97	*1928	23.81
1907-34.....	28	55.94	1911	11.04	1934	29.12

*1928 was the low year previous to 1934.

It appears that there has been an almost steady decline in moisture since 1916 and if there is anything to the alleged weather cycle of 33-year periods, we are now about in the trough of the dry cycle.

Effect of Low Supply

The most marked deficiency occurred during the months of June and July, which is the most critical period of the growing season.

Many junior appropriators had no water for irrigation at any time and it became a serious problem to get water for domestic purposes (given by senior rights) for families living on the mesas at some distance from the streams.

Towns and municipalities were not so seriously affected as the irrigated areas, for the reason that the most prior water rights have been purchased by the towns, although it was necessary to restrict the use of water in the town of Mancos.

Ground Water

The ground water table and the flow of springs lowered or decreased in about direct relation to the surface supply.

Wells became dry and springs that had always been depended upon as domestic supply, stopped flowing.

The ultimate effect of the deficiencies of precipitation, stream flow and ground water was to place several counties of this Division under the classification of drouth-stricken areas. From such classification a measure of relief was had through the agencies of the Federal Government.

Crop Production

The crop yield varied from complete failure to fifty per cent, due not only to the short water supply, but also to unfavorable growing conditions during the early months of the growing season. A frost in June damaged tender plants.

The crop failure brought about a serious problem of feed-for livestock, to say nothing of the lack of gardens upon which many families are dependent for sustenance.

Hydrographic Data and Administration of Water Rights

The measurements of flow and records of available water supply were made on the principal streams as well as measurement and records of diversions by canals.

Administrative duties increased on account of the low water supply and the more than usual exacting demand of senior water users.

The Pine River decree, which had been in court for several years, emerged suddenly and became effective on June 12, 1934. A water commissioner was appointed on the same date by Governor Ed C. Johnson, whose prompt action was appreciated. Administration of the decree started the next day with measurement and regulation of water to priorities numbered one to forty-three by noon of the 14th.

The administration of this decree is rather complicated on account of a provision which gives a common date to eleven claims totalling 332 second feet, which necessitates delivery of water on a percentage basis of the available supply for that priority, the same being No. 43, dated October 1, 1900, or the rotation of the amount available with the consent of the owners of the common decree.

Administration is also involved because of the demands of Priority No. 1 or Indian Rights for the several ditches under the supervision of the Government. The Indian Service demanded water for 5,600 acres of land, but not all of such demand came from the river, as some ditches diverting from the lower stream were supplied by return flow and tributary flow, thus lessening the delivery from the main stream.

When the decree was entered and put in force there were but two measuring flumes in the entire district. The water users cooperated splendidly with the water commissioner in the installation of measuring flumes and the repair of headgates. The Indian Service installed measuring flumes and automatic recording devices on all ditches taking water for Indian Lands.

Eight hundred and fifty acre-feet of water from storage was diverted by canals near Bayfield. Such water was released to the stream from Emerald Lake, which is a natural lake on the headwaters of the Lake Fork of Pine River. The natural level of the lake had been raised five feet and this depth of water was released by cutting the dam, as there had been no provision made for outlet works. Gates were installed in the cut through the dam so that future release of water can be properly regulated.

Another decree was entered early in 1934 for District No. 34. This decree brought in many new ditches on the Dolores River and some old ditches which had passed up former adjudications. It also increased the absolute decree for the Montezuma Valley canals from 64.6 second feet to 538.5 second feet under the conditional provisions of the former decree as priority twenty-one and renumbered as sixteen. This decree brought about an exacting administration on the Dolores River on account of the demands by priority No. 16, whereas prior to this year the low amount of water awarded that priority was not generally affected by diversions above on the stream and there was seldom any conflict as between the other priorities.

Serious charges were preferred against the Water Commissioner of District 34, charging failure and neglect to properly regulate the flow into canals taking water from Mancos River. The plaintiffs were successful in proving the charges preferred before the Civil Service Commission, which body, "for the good of the service," suspended the commissioner for ninety days. An acting commissioner was appointed by Governor Johnson for the ninety-day period.

An acute water shortage also occurred in water District No. 29, San Juan River and tributaries, in which there had been no commissioner for a number of years. A Water Commissioner at Large was appointed, who made the proper regulations on canals in Archuleta and Mineral counties for a period of sixty days. He also was handicapped by the lack of proper headgates and measuring flumes.

Irrigation Development and Improvements

The State of Colorado, in co-operation with the U. S. Geological Survey and other Government agencies, constructed and installed four modern stream-recording stations at the following points: Dolores at Dolores, Animas at Durango, Florida near Durango and La Plata at State Line. Also under the F. E. R. A. the left bank of the Animas was paved at the gaging station to prevent erosion of the bank and to control the channel. The channel of the La Plata River at Hesperus was cleaned of boulders and gravel above and below the measuring weir for a distance of several hundred feet. A new footbridge was built on the La Plata at State Line, since the old bridge had been washed away by a flood on August 26th. The above work used approximately 3,000 hours common labor, 500 hours skilled labor and 800 hours of team work. The material cost was about \$2,000.

There were no major developments by corporate or individual enterprise. The Red Mesa Ward Reservoir Co. built a ditch from the La Plata River to the reservoir in Hay Gulch. This ditch is a little over a mile in length and has a carrying capacity of one hundred second feet.

Plans were made and efforts put forth to get Federal Aid for the construction of the La Plata and Pine River reservoirs.

A survey and report was made of a reservoir site near Mancos.

The Montezuma Valley Irrigation Co. has submitted plans and requests to the Government for aid in constructing additional storage reservoirs.

The Summit Reservoir and Land Co. also plans to enlarge the reservoirs of their system through Government financing.

New measuring flumes and automatic recording devices were installed late in the season on the main canals of the Montezuma Valley irrigation system.

Only necessary repairs and improvements were made on canals and structures over the Division. The cost of improvements reported was \$30,440, repairs \$20,852, superintendence \$13,563, and other expense \$13,685. The above sums are larger than yearly expenditures for some time, and indicate a return of confidence, or the necessity of doing certain work in order that water might be carried through the canals.

Very respectfully submitted,

J. R. WILLIAMS,

Irrigation Division Engineer, Irrigation Division No. 7.

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH
REPORTS, 1934

Dist. No.	No. Ditches Reported	Number Priorities Reported	Amount Appro- priated in Cu. Ft.	Capacity of Canals in Cu. Ft.	Length of Canals in Miles	First Day Water Was Used
29.....	220	236	589	639	48	No Report
30.....	182	226	584	748	235	March 1
31.....	66	72	670	1,206	187	*June 13
33.....	40	43	592	390	55	April 3
34.....	55	103	748	969	109	April 1
69.....	27	16	22	99	26	March 28
Totals.....	590	696	3,205	4,051	660	March 1

Dist. No.	Last Day Water Was Used from Natural Stream	Maximum No. Days Water Was Used	Average No. Days Water Was Used	Average Daily Amt. Diverted in Sec. Ft.	No. Acre-Ft. Used from Natural Stream	No. Acres That Can Be Irrigated
29.....		†104	...	...	*5,031	†43,000
30.....	Nov. 15	255	137	321	87,836	58,172
31.....	Nov. 2	140	...	189	*52,823	57,083
33.....	Oct. 9	174	54	84	9,098	21,900
34.....	Nov. 22	236	114	350	79,923	73,768
69.....	Aug. 28	81	38	56	4,222	2,523
Totals		255	86	1,389	238,933	256,446

Acres Irrigated

Dist. No.	Alfalfa	Natural Grasses	Cereals	Orchards	Market Gardens	Potatoes
29.....	*737	*2,163	*100	...	...	...
30.....	11,261	4,124	7,777	667	39	572
31.....	16,265	9,227	12,399	189	72	339
32.....	...	...	...	...	...	...
33.....	4,268	140	2,150	110	2	324
34.....	14,605	11,720	11,201	1,065	3	1,365
69.....	605	492	328	6	0	39
Totals	47,741	27,866	33,955	2,037	116	2,639

*Record after June 13th. †Report incomplete. ‡Estimated by Division Engineer.

IRRIGATION DIVISION NO. 7

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL DITCH REPORTS 1934

Dist. No.		Acres Irrigated			Operation and Maintenance Costs—Dollars		
		Beans	Other Crops	Total Irrigated	Superintendence	Repairs	Improvements
29	.....	...	*25	†25,000	.....	174	.....
30	.....	5	330	*3,025	.....	10,458	2,470
31	.....	43	1,428	24,775	2,031	7,607	24,470
32	.....	...	...	39,962	7,607	.....	.....
33	.....	103	188	†3,000	.....	230	.....
34	.....	1,010	755	18,285	590	14,407	2,525
69	.....	...	646	41,724	7,272	1,363	.....
	Totals	1,161	3,372	2,116	13,563	20,852	30,440
				*122,887			

*Report incomplete. †Estimated by Division Engineer. ‡Includes 1,000 acres irrigated under non-decreed seepage and spring ditches.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL RESERVOIR REPORTS FOR 1934

Dist. No.		Number of Reservoirs in District	Area of High Water (Acres)	Capacity in Cubic Feet	Amount in Storage on May 1st, Cubic Feet	Amount in Storage on Nov. 1st, Cubic Feet
29	.....	3	.....	26,972,352	No Report	No Report
30	.....	3	899	1,089,101,770	692,473,320	*695,783,880
31	.....	1	354	†77,144,760	77,144,760	15,428,952
33	.....	1	37	25,102,541	9,147,600	0
34	.....	5	909	551,634,188	548,451,000	13,118,000
69	.....	0	.....	.....	.....	.....
	Totals	13	2,199	1,769,955,611	1,327,219,680	724,330,832

Dist. No.	First Day Water Was Used	Last Day Water Was Used	No. Days Water Was Used	Average Daily Amount Used, Cubic Feet	No. Acres—Feet Used	Crops Irrigated from Reservoirs Only—Acres	
						Alfalfa	Natural Grasses
30	..... Apr. 30	..... Aug. 30	120	5	1,200	800	...
31	..... July 18	..... Aug. 3	17	25	851	835	395
33	..... May 15	..... Oct. 23	28	4	217	...	...
34	..... May 1	..... Oct. 1	75	82	12,292	2,300	500
	Totals		120	60	14,560	3,935	895

*A large part of storage capacity is in Electra Lake, storing water in summer for use in winter.

†Capacity of Emerald Lake estimated for five feet of height above natural level of lake.

TABULATED STATEMENT OF WATER COMMISSIONERS' ANNUAL
RESERVOIR REPORTS FOR 1934

Crops Irrigated from Reservoirs Only, in Acres

Dist. No.	Cereals	Orchards	Market Gardens	Potatoes	Beans	Other Crops	Total Irrigated
30	40	..	..	..	..	..	840
31	635	43	..	56	6	..	1,970
33 .....	..	..	45	40	5	..	90
34	2,100	175	..	710	..	640	*19,557
Totals	2,775	218	45	806	11	640	22,457

*Includes 13,132 acres with supplemental water from reservoirs.

Dist. No.	Cost		
	Superintendence	Repairs	Improvements
30	No Report	No Report	No Report
31	\$ 400	....	\$ 200
33	20	....	....
34	1,520	....	825
Totals	\$ 1,940		\$ 1,025

NOTE: Costs of operation and maintenance of reservoirs in District 34 by Montezuma Valley Irrigation Co. are included in cost of ditches.

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